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Original Articles.

THE ILL-HEALTH OF RICHARD WAGNER.

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The following quotations are from the life by Glasenapp and Ellis, and from the volumes of letters to Heckel, Wesedonck and Liszt. I regret exceedingly that the reproduction here of so large a number of excerpts is necessary. I have omitted many that seemed possible to be spared and not spoil the clinical picture. Only by the careful reading can one get a clear idea of Wagner's sufferings and symptoms, and be thus enabled to come to a sound diagnosis of the one malady that resulted in such various and life-long symptoms.

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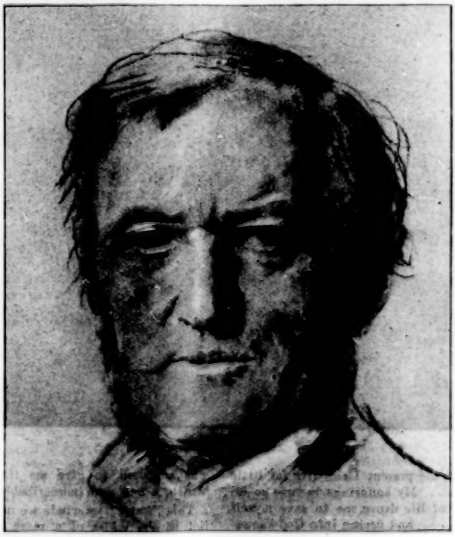


RICHARD WAGNER [Lenbach].*

Richard Wagner was born in 1813. His delicate constitution required peculiar care, for he was already troubled with that irritating form of erysipelas (erythema or eczema?) which recurred at intervals throughout life . . . Down to his sixth year he had no regular lessons; the mother wished to give him time to pick up strength, and would not have plagued him with school work. . . . A pale, slim little chap in short-armed frocks, but unruly enough already—thus the traditions show the tiny Richard. G., p. 61.

My good uncle tried his best to put me through some educational training, . . . That I did not profit much by his instruction was, I fear, my own fault. I preferred rambling about the little country town and its environs to learning the rules of grammar. . . . I often beguiled my uncle into reading me a story that I might avoid working. 1821 or 1822.

By right they had to suffer for each other, as both were most excitable and fitful sleepers. . . . Cäcilie had plenty to say of her brother's sudden shouts and talking in his sleep, his laughter and tears in the night. 1822-1823.

To roam about the country was his chief delight. *Do.*

He ranked among the best pupils in that gymnasium from the first, and passed through various divisions and classes with fair rapidity. 1822-1827.

He was plagued with a cutaneous malady even in his school days. . . . Repeated attacks of the kind . . . An attack would be preceded by depression of spirits and irritability of temper. Conscious of his growing peevishness, he would seek refuge in solitude. As soon as the attack was subdued, his bright animal spirits returned. *Do.*

The refinement and energy of his features and the look of wanness and suffering they wore. About 1838.

The prose must be turned into verse, and the music composed in a fortnight. . . . his nerves have been so overtaxed that he has "often sat down and wept for a quarter of an hour at a stretch." 1843.

Constant victimage to a feeble stomach while instrumenting Tannhäuser in 1845.

My whole being had been so consumed with ardor for my task that the nearer I approached its completion the more I was haunted by the notion that a sudden death would stay my hand; so that when at last I wrote its closing chord I felt as joyful as if I had escaped some mortal danger. 1845.

Lonely walks. 1845.

Devoted some five weeks from July 3 to humoring his health, as well as his unresting brain would let him. 1845.

Despite the doctor's warnings against my engaging in any such occupation. Working at Lohengrin, 1845. The doctor's orders were so emphatic against any interruption of his present cure that Wagner was obliged to abandon the outing. . . . The reason for declining was a determination of blood to the brain, brought on by his exertions of the past season, not yet left him. *Do.*

Scarcely could he himself say for certain whether his state of health was the cause of his low spirits or they the ground of his feeling so unwell; perhaps it was a little of both. 1846.

The condition of his health just now is proved by his obtaining a three months' leave of absence, "to breathe again as man and artist" in Switzerland. 1846.

Indulged in his favorite pastime, reading. 1846.

*By the courtesy of Dent & Co., the publishers of Chamberlain's "Richard Wagner."

Was there any possible way out—save death? 1847.

He speaks of a sick bed to which he has been confined for some days. The indisposition must have lasted for at least a month, for in January, 1848, he wrote that he has had a "severe attack of illness." 1847-1848.

He was busy with ideas for a big work from German mythology, but feared he might be too old, and should have undertaken it when younger. 1848—aged 35.

The writing of the Niebelungen Myth is followed by "a period of great depression." 1848.

Winter seems to have been always attended with a certain lowering of vitality. Last year we saw it take the form of a serious illness; this year it takes that of a general depression of spirits. . . He felt "too old" to undertake his Siegfried. 1848-1849.

The sole redemption lay in flight from out this life, in casting off its claims on me by self-destruction. End of 1848.

Gnawing torments. 1848.

His passport describes him as "of medium stature, brown hair, wears glasses." 1849.

His ancient winter foes return, particularly rheumatism, which this time makes an inroad on his heart. 1849.

He was thoroughly broken down for the present, what with rheumatism and his recent spell of literary work at high pressure. January, 1850.

Feeble, full of pain, unable to sleep, in search of quiet. February, 1850.

I'm happy to tell you I've got to the root of my illness; a violence done to my spirit had aggravated my bodily torments to a dangerous pitch. February, 1850.

He means to take a journey southwards for complete recovery of his health. March, 1850.

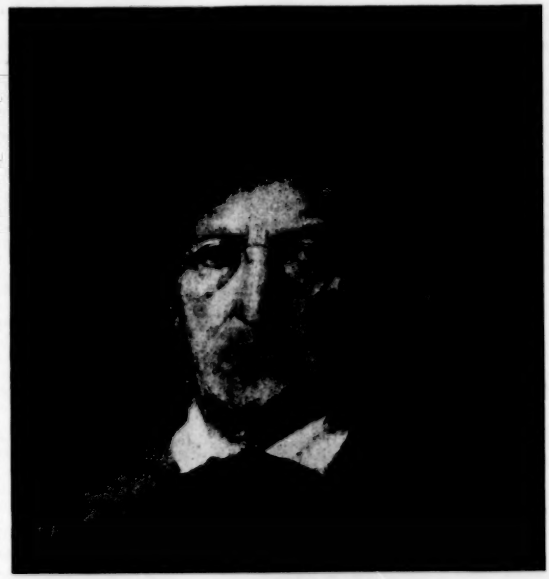
I've lost my health, my nerves are shattered. For the present I can live for little more than convalescence. . . . My sufferings became so insupportable that the instinct of life drove me to save myself by breaking with everyone . . . and fleeing into God-knows-what strange land. 1850.

Ah, let us above all things get health. 1850.

Ill, very ill as I was. Letter to Heine, 1850.

Four to five months were indeed too short to devote to a work of such originality and magnitude; too short for the author's own health . . . The last pages of this copy I have written in a mood I can intelligently describe to no one. Candidly speaking, my only wish is to get the hateful manuscript out of the house. Of "Opera and Drama." 1850.

Nine years afterwards Wagner refers to the "fatigue" that had come over him when writing "Opera and Drama," a fatigue that "so sorely weighed upon his brain" that he calls it an "abnormal state of mind." *Do.*



RICHARD WAGNER.*

I am glad to be able to tell you that I have discovered the nature of my illness; it was to a great extent melancholy; at any rate, a strained state of mind has brought my constitution into the present dangerous and excited condition. 1850.

My illness was the result of melancholy. 1850.

The master has just been ordered to the water cure. 1851.

His health was so broken by previous excess of work. 1851.

Winter is my mortal enemy. 1851.

My headlong mode of working always tells upon me somewhat severely in the end, and I am obliged to recuperate awhile, as usual; for the next few days, accordingly, I can not undertake the making of a copy for you. 1851.

To my joy I found music shaping itself to these verses most naturally and easily, altogether of itself as it were. Only the first beginning of this labor warned me that I should completely undermine my health, if without having thoroughly attended to it, I yielded to my impulse, and pursued—presumably without a break—what I had just begun. So I came to this hydropathic establishment. 1851.

Had I gone to my "young Siegfried" in my present state perhaps I should have become incurable by next spring. Moreover, if I had dragged along with my infirm lower man I should have been highly inconsistent with my principles. The idea of setting to work at my Siegfried in perfect health has something of what I might call a glad solemnity. So—it's settled—I shall undergo the complete water cure. 1851.

I have become a complete water man. This time I was ten weeks in the hydropathic establishment; only on account of the winter setting in early and with great severity have I given up the cure for the present. However, it was sufficient to give me the clearest foretaste of perfect health, a new and indescribable feeling of comfort, etc. 1851.

This "water" interlude we may take as a not unwelcome relief in the midst of a more intricate topic. What Wagner had to undergo, however, in the vain attempt to diet his body into a condition of robust health, would be past belief in these days of saner physiology had we not his written word for it. Poor Uhlig himself, its original instigator, succumbed to the effects of a less drastic form soon afterward.

It was nearly a twelvemonth since that Uhlig began pressing his "water views" on his leader; Wagner then replied, "I only drink water when I feel a thirst for it; yet I am far less sanguine than you!" (Oct. 9, 1850.) But the idea soon exercised a kind of fascination over him; in a fortnight he is so far on the road to conversion that he admits its value on the testimony of his younger friend's experience. By Christmas he had commenced to experiment on himself, in an amateur fashion: "I, also, am doing a sort of water cure; besides a sponge down in the morning, cold water drunk in bed." That does

*Reproduced from Chamberlain's "Richard Wagner," by the courtesy of Dent & Co.

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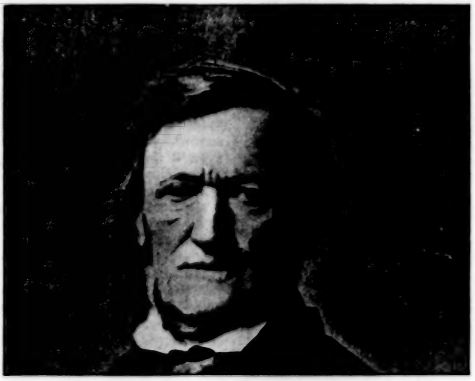
not satisfy the zealot Uhlig; he recommends a "Neptune girdle," which sounds something like a wet waistband, and makes one shiver at the thought of wintery cold in Switzerland. Wagner valiantly attempts it. "I followed your advice about the Neptune girdle at once. I hope it will suit me. On the whole I feel surprisingly better than last year." (Jan. 20, 1851.) Two weeks later, however, he has paid the penalty of dabbling. "I'm rather unwell. By the advice of a first-rate physician, who also is an advocate of water, I have had to lay aside the Neptune girdle for a time." And laid aside it appears to have remained, till Uhlig came to Zurich and waxed eloquent about the virtues of a system that decidedly had added neither color to his cheeks nor flesh to his bones.

Uhlig unluckily did more; he brought with him a water volume by a certain Rausse, and well-meaningly left it behind him. On the 24th of August (1851), taking a rest after the labor of fair copying the Communication, Wagner relates how he has begun to turn Rausse's theories into practice during the past week: no wine, no beer, no coffee, no soup; only cold water and milk, so far as drinkables are concerned; 3 to 4 glasses of cold water in bed before rising, and any number of glasses during the day; baths at home, or in the lake at midday; half an hour's walk immediately (!) after food. No wonder he remarks that his head feels "lighter, but often somewhat dull," though he considers the latter a mere passing effect, and expects "to end by getting more health than I shall know what to do with." Naturally the end of another fortnight reveals him in a wretched state, so wretched that he has been to consult the proprietor of a hydropathic quackery (September 8), who equally naturally insists on his coming there, to submit to heroic measures. September 16 Wagner goes to Albisbrunn in the commune of Hausen, on the hills to the southwest of Zurich, too ill to think of any Siegfrieds for the moment.



RICHARD WAGNER.

From Rubenstein's arrangement of the vocal score of Tannhäuser. This photograph probably formed the basis of Lenbach's realistic drawing.

On the whole, these ten weeks at Albisbrunn appear to have done him temporary good, but rather as a change of air and scene, a relaxation of mental strain, than in any other way. His humor does not forsake him, and it is here that his gigantic plan matures; but when one reads of the treatment to which he is subjected, one can feel nothing save amazement at the power of resistance innate in his constitution. This is how he describes the "cure," a fortnight ere its termination: "My daily program now: 1. From 5:30 to 7 in the morning, cold pack; then cold tub. Wanne and promenade; breakfast at 8, dry bread and milk or water (no butter allowed, as he says in another letter). 2. Short promenade again; then a cold compress. 3. Towards 12 o'clock a wet rub-down; short promenade; another compress. Then dinner in my room, to avoid disrelish (was it, or the sight of other victims, so nasty?). An hour of idling; brisk walk of two hours—alone. 4. About 5 o'clock another wet rub-down and a little promenade. 5. Hip bath for a quarter of an hour, about 6, followed by a promenade to warm me (surely in a corridor, for it must have been pitch dark by then). Another compress. At 7, supper; dry bread and water. 6. Whist party till 9, followed by another compress; and about 10 o'clock to bed. This regimen I now can manage very well; perhaps I shall even increase it." "I feel myself on the high road to recovery." 1851.

Quiet! Quiet! Quiet! Country! Country! Then—health—cheerfulness—hope! else—all is lost! I can no more. 1851.

Beyond the water business my employment consists in building a house on paper with rule and compass. 1851.

This winter I shall idle for my health, only sketching as thoughts occur to me. 1851.

For the recovery of my youth, for health, nature, an unreservedly loving wife and a flock of children I would barter *all my art!* There, take it! Give me the other. January, 1852.

I have got so far that I place no faith in any system, but only in a specially gifted and sound physician, an individual. For such an one I long, not for any fads. 1852.

The water cure had "worked wonders," as he fondly imagined for a while. "I am basking in a sense of a well-being such as I had never conceived. My indomitable cheerfulness," etc.

At Albisbrunn he had been condemned in the end to baths of but 7 degrees above freezing point; at home he has raised their temperature to the more civilized limit of 55 F., but mental rest is strictly enjoined on him, together with a diet which he describes as "dry bread" and milk for breakfast, dry bread and water for supper; at midday English cooking, i. e., vegetables boiled plain and meat roasted on the spit . . . The water business he still has so at heart that he writes to Sulzer a defense of it three quarto pages long, though the only extract published by Herr Steiner does not make clear whether outward or internal application is the bone of contention: "As I could not possibly subside into a merely casual acquaintance with a man who has been and is, at a crucial period of my life, what you have been and still are to me; a man I sincerely respect in the warmest sense of which that word is capable—the ultimate consequence (of Sulzer's recusance) would be that I must give my Zurich haven up; a necessity I feel so deeply that I was compelled to declare it yesterday to our two friends." It is difficult to believe that such earnestness has reference to nothing more serious than a divergence of views on the efficacy of water; but, however we interpret it, Herr Steiner further informs us that, rather than allow the split to go to such a length, Sulzer made certain "concessions."

As for Wagner himself, departure from a strict observance of cold water soon was forced on him by the same consideration that had started it—his health. All through this winter, in fact until next autumn, we hear of one modification or another, in the endeavor to restore a shattered set of nerves, culminating in the lesson of experience passed on to Uhlig next October: "Our water doctors, one and all, don't know enough about nerve troubles. Constitutions like mine are benefited by none but warm baths, whereas cold ones ruin them entirely. If I can only get my nerves right, you'll hear another story!" The same with his tectotalism, which is wisely abandoned at last for an occasional glass of good wine. Had he but had his good Dresden doctor Pusinelli within arm's length, instead of various experimenters on a bodily constitution they understood as little as his critics his artistic theories, perhaps the music of the Niebelungen might have actually been finished in not much over the three years orig-

inally propounded for its term. But the awl of the amateur health cobbler was picked up first by one friend, then by another, till the letter last quoted avows: "For the present my doctor is Herwegh: he has great knowledge of physics and physiology, and is more sympathetic toward me, in every respect, than any physician who is not at the same time a friend." February, 1852.

"I'm terribly fatigued again." March, 1851.

I am daily thinking of my death. 1852.

I can not pull round as yet, and am suffering from sleeplessness with great dejection. *Do.*

Beethoven, the Holländer, ill health, sleepless nights, repeated disillusions—all were factors in the evolution of that colossal drama which had occupied his brain ever since he returned from Albisbrunn. G., 1852.

I am now living for nothing but my health. I am taking a rest after the somewhat trying effects of my late cure. Dec. 14, 1851.

It is to no water establishment that Wagner goes this time, as once proposed; his faith in that drastic regimen has been rudely shaken during the last few months. Moreover, "it is quite impossible for me to spend half a year at a hydro." Not long ago he had heard through Ernst Kietz of a certain Dr. Karl Lindemann, a fellow exile, then "working remarkable cures in Paris with a marvellously mild water régime. His specialty seems to be nervous disorders." So he had written Lindemann a detailed account of his symptoms, and received a regular chart of instructions to cover a protracted period: for diet, chiefly game simply cooked, with a glass or two of good wine; his baths to be tepid rather than cold; the main affair—"I'm to keep quiet and write poetry." May, 1852.

The open air is doing me much good; every morning I roam about for two or three hours before setting to work. My working time I don't extend beyond two hours a day; it was by frequently working five to six hours that taxed my nerves before. I have finished the entire draft of the Walküre now. May, 1852.

His lonely walks. *Do.*

Yesterday I finished my Walküre after a month of work. . . . once more I am somewhat severely knocked up; no doubt I work at too high pressure. July 2, 1852.

When I've finished a thing like the Walküre I always feel as if I had sweated a huge anxiety out of me, an anxiety ever increasing toward the end of the work, a kind of dread lest I should spoil something: my signature and date foot the page, as though the devil were standing behind me, trying to stop my last stroke. Much the same had it been with the scoring of Tannhäuser: The nearer I approached its completion the more I was haunted by the notion that a sudden death would stay my hand; only there is a new element here. "*Lest I should spoil something.*"

I was going to begin the composition and found to my joy that the music adapted itself to these verses quite naturally and easily, as if of its own accord. But the very commencement of the work reminded me that I should ruin my health entirely if I did not take care of it thoroughly before yielding to my impulse and finishing the work at a stretch and probably without interruption. When I went to the hydropathic establishment, etc. (November, 1851. Letter to Liszt.)

My previous continual anxiety about my health has also now been relieved by the conviction I have since gained of the all-healing power of water and of Nature's medicine; I am in the way of becoming, and if I choose, of remaining, a perfectly healthy man. If you wretched people would only get a good digestion, you would find that life suddenly assumes a very different appearance from what you saw through the medium of your digestive troubles. (November, 1851. Letter to Liszt.)

I am still occupied in resting from the finally somewhat powerful effect of my cure. December, 1851.

We sedentary animals scarcely deserve to be called men. How many things we might enjoy if we did not always sacrifice them to that damnable "organ of sitting still." 1852.

The nerves of my brain are so overwrought that even these few lines set me in a violent commotion. I find that I may be able to do something good, but only on condition that I keep a strict watch on myself, and especially that I interrupt my work often and completely divert my thought before going on again. May, 1852.

Then I had a sublime view of the terrible mountain world of ice and snow and glacier, which seems to be so close that one might clutch it—I am walking capitally, quite strong on my legs; only I'm not contented with my head as yet. The nerves of my brain are hideously out of order; agitation or prostration—never any time true repose. July, 1852.

My digestion has been in a very bad way of late. *Do.*

Peace I did not find. It's all up; there's no youth left in me; to live stands no longer before me; all my making and doing can now be naught but gradual decay. The nerves of my brain, there's the trouble. *Do.*

Unfortunately I can work but slowly, as everything is an uncommon tax on my brain just now. Only to-day have I finished the MS. of my address on the performing of Tannhäuser. . . It has taken much out of me, and I shall have to try to rest it off. August, 1852.

Throughout the whole of these six months we hear one constantly repeated cry of "headache," as if the twofold strain on the mind were wearing out its organ. At no other period does the physical suffering appear to have been at once so acute and so protracted. Is it a condition normally attendant on the birth of a colossal masterpiece? "My health is none of the best, and although my body looks fairly robust, my nervous system is in a serious state of increasing exhaustion. Through this everlasting life of phantasy without any corresponding reality, the nerves of my brain are so severely overwrought that I can only work by spurts now, and with long interruptions, if I don't mean to become a complete and chronic wreck." *Do.*

From the perpetual expression "the nerves of my brain" ("meine Gehirnnerven"), coupled with the apparent "robustness of body," I should argue (writes Ellis) that the malady was nothing deeper-seated than megrim, alias migraine or "sick headache"; but anyone who has ever been a victim to that scourge, similar in many of its nervous symptoms to "influenza," will recognize the sheer impossibility of mental application when an attack is in full swing. The various forms of dieting to which Wagner had subjected himself would only tend to lower the general tone of the nerves, and thus exacerbate the malady; whereas the last thing a sensible physician would have advised would have been the climbing of dizzy Alps and the forced march across the Italian frontier, which the patient had undertaken on his own account by way of recuperation. And on his holiday to be plagued with business details, too! The result is, that he returns to Zurich so prostrated that he exclaims to Uhlig a day or two after: "You people mustn't talk theory any more to me just now; it sends me clean crazy. The nerves of my brain! there's the mischief. I've terribly assaulted them; it's quite possible I may yet go mad!" August 9, 1852.

And so it goes on, with variations of the same complaint (chiefly addressed to Uhlig), at least until the Rheingold poem is completed and the greatest load thus discharged from his mind. At first, in fact, it is impossible even to think of poetry. "I've written Heine to-day. My head is not yet clear enough for working." August 11.

"Unfortunately I'm getting on very slowly (with the Tannhäuser Guidel), as all manner of work tries my head uncommonly just now." August 14.

"If my head were but better! With that cursed brochure, which I rushed at last so as to polish everything off, I ruined myself again. Often it's like a sharp knife cutting into the nerves of my brain. Moreover, I'm feverishly tired in all my limbs; but if only my head will recover, they also will rapidly improve; on it—that laboratory of the imagination—depends everything. . . . Forgive me my many commissions; but if you don't do a double turn for me now, 'twill be all up with

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me. Think of it! even this letter almost knocks me down." August 30.

There cause and effect are plain as can be; the Tannhäuser, with all the correspondence involved, has told severely on an excitable system, and the "nerves of his brain"—scientifically speaking, the region round about the optic thalami—must pay the penalty. That "sharp knife" cutting, the "feverish tiredness in the limbs," and the sense of impending evil, are the very symptoms of megrim; the attacks of which, especially if brought on by mental labor, may sometimes be prolonged for several days by successive relapses.

"Only two lines; I mustn't write, because I can't; that's how things stand with me"; and after barely a dozen lines, "I can write no more. Good-bye." Three days later an equally short letter, so unusual in this correspondence, ends with "That's all I'm able to squeeze out to-day. Don't take it amiss!" September 8.

On the same date that notable letter to Liszt about Raff, Berlioz and new creations (p. 360 ant.), begins and ends as follows: "Unluckily I can't reply to you as I should wish. The nerves of my brain are so racked again that I have had to give up all writing and reading for a while—I might almost say, all mental existence. Every letter—even the briefest—knocks me terribly up, and nothing save the greatest quiet (where and when?) can—or rather, could—put me really right. . . . I can write no more now! Don't be cross with me! My head is nigh bursting! I'll just hurriedly add the warmest farewell I have in my heart." Another three days later: "My head is still bad, and all my nerves upset, in consequence of this eternal friction with an invisible load outside. . . . Farewell, I must stretch myself full length on the divan, to close my eyes (to U., September 11)." Next day we have the letter to Roeckel, cited a page or two back. A week after that: "I am growing accustomed to the ruin of my nerves; one can always do a little something with them still. . . . To-day is the federal fast day, and for the last week the Föhn has been enough to make one wish one's nerves at the Devil." The Föhn is a moisture-laden south wind peculiar to the valleys and lakes of Switzerland, but similar in its general effects to the sirocco so prevalent at Venice, etc. Its humidity would really seem to have eased the writer, however, much as a vapor bath might; for, not only does he indulge once more in a good streak of his pristine humor in this letter of September 19 to Uhlig, but also has important news for us: "My condition isn't a hair's breadth better yet; only I'm gradually accustoming myself to a fresh degradation of my health; I'm accommodating myself to it, and even work a little hour a day now!"

Progress with the poem was by no means break-neck at first: "a little hour a day." Nor even every day; for a fortnight later the intimation to Liszt runs, "My nerves are still none of the best; yet I have begun to work a short hour a day at my poem again, off and on. There'll be no peace for me till I know it is finished, which I hope will be ere long." October 3.

The presence of Belloni and Vieuxtemps would scarcely expedite matters, and October 5 we read (to U.), "I shall tell you nothing about my work; it's going slowly, but well!" Unhappily the next sentence is ominous: "Farewell and healthier than me. I shall shortly go crazy!"—a repetition of the fear expressed two months ago. Before a week is out the poem has to be laid aside: "That I am able to write you at all to-day is simply due to my decision to make a forced pause in my poetic work, not to fall once more into that fatal condition the most painful effects of which I have only just outrun a little. Letter-writing, however, I now am convinced once for all severely taxes me, and you therefore may flatter yourself if I manage even to fill this sheet of paper. If the weather were not so inveterately bad I should have started to-day on a couple of days' excursion. Already I had mapped out a tour to Glarus and Schwyz. Unfortunately, with this eternal gray dampness of the atmosphere I shall have to adjure any pleasure trip; simply my afternoon walk I keep up, mostly three to four hours, however hard it rains, albeit with a hang-dog sort of pleasure." October 11.

The "sheet" gets filled to overflowing, nevertheless, and lower down this letter we learn that "warm baths of 86 degrees for half an hour in the evening just before going to bed" have helped him much. "Without that bath I should have been a lost man by now; it quiets my nerves and gives me good sleep every time. Lindemann has even advised me to take a similar bath for half an hour in the morning, if I want to get rapidly well; for the present I only take a short one in water chilled to 77 degrees. My head I repeatedly douche with colder water during each bath." It is while thus "comparing notes" with a brother invalid, poor Uhlig, that Wagner receives the elating news of the Breslau success of Tannhäuser.

(To be continued.)

1. Under the heading "Megrim (migraine, hemicrania, sick-headache), a standard English medical authority remarks: "During the paroxysms nothing is so efficacious as complete rest in the recumbent posture, in a perfectly quiet and darkened room." The further statement that his malady "generally subsides with advance of years. Patients do not often suffer from it after 50." bears out my diagnosis, since we do not hear of these sick headaches when Wagner has passed that age.—W. A. E.

EPISPADIAS.

REPORT OF A CASE OPERATED ON BY A MODIFICATION OF CANTWELL'S METHOD.*

JAMES B. BULLITT, M.D.
LOUISVILLE, KY.

The purpose of this paper is to again call attention very briefly to an almost ideal operation for the relatively rare but distressing deformity, epispadias; and, further, to describe a modification of the original operation which the writer found it necessary to make in the single case on which he had the opportunity of operating.

This operation, described by Cantwell[1] in 1895, performed by Herbert Page,[2] in 1898, and again by Parham and Martin[2] in 1900, seems not to have gained the recognition it deserves, and not to have found its way into the recent text-books of surgery.

Bryant voices the sentiment of practically all the text-book writers when he says: "The ability to secure as satisfactory results in this deformity as have been secured in hypospadias has not yet been attained."

The procedures usually recommended are similar to the plastic operations applicable to the condition of hypospadias, and of these the methods of Thiersch and Duplay are the best and most useful examples. But these operations leave much to be desired, both from the standpoint of functional result, in overcoming the incontinence, and the length of time required for the progressive steps.

Cantwell's operation, having for its object the transplantation of the newly formed urethra to its normal situation beneath the body of the penis, permits a quick result to be obtained, and relieves entirely, or in a marked degree, the distressing incontinence.

TECHNIC BY CANTWELL.

Briefly described, the operation of Cantwell is made as follows: A curved pair of forceps is first introduced into the bladder and its point made to bulge the perineum. This is cut down on and drainage of the bladder provided by means of a rubber tube which is left in place until the process of healing is complete. Next an incision is made on both sides of the penis at the junction of the mucous membrane and the skin beginning proximally at the opening of the bladder, and extending distally to the end of the glans penis. The

*Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. A. J. Ochsner, J. E. Moore and De Forest Willard.

1. Annals of Surgery, December, 1895.
2. Ibid., January, 1901.

meatus is usually just under the pubic arch. The mucous membrane lining the groove on the dorsum of the penis, and marked out by these incisions, is now dissected up, care being taken to carry the dissection well back to the infundibulum, almost to the bladder wall.

When this is thoroughly done the urethra can be drawn out surprisingly. This mucous membrane flap is now converted into a urethral tube by suturing its free edges together, and should be long enough to reach quite to the end of the glans penis.

Next a new bed for the urethra is made by dissecting apart the two cavernous bodies, leaving them attached only by the skin at the under surface of the penis. In the normal penis this separation would be most difficult, but in epispadias is extremely easy. This separation should be carried well back behind the pubic arch, so as to transplant deeply the urethra for its whole length; a slight incision is necessary in the glans. The urethra is now transplanted into this groove between the corpora cavernosa, a few sutures serving to anchor it to the underlying skin of the penis. Above the urethra the corpora cavernosa are brought together and united by continuous suture; and finally the overlying skin, which is usually abundant for the purpose, is sutured over all. This produces a penis which presents a surprisingly normal aspect, except for the apron of foreskin.

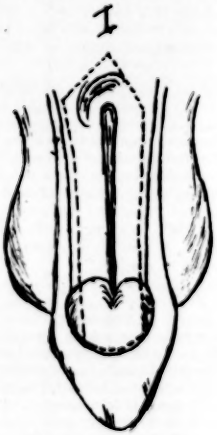

Fig. 1.—After Cantwell.

If healing occurs by first intention, the whole procedure is through with in two weeks' time. The patient is able to retain his urine almost perfectly in some cases, and can void a full stream through a meatus at the normal situation in the glans penis.

MODIFIED METHODS.

Cantwell recommended that the operation be not undertaken under 10 years of age, because of the small size of the parts and the presumption that the younger the patient the more dangerous any operation. The case reported by Parham and Martin, however, was only 5 years of age, and my own was 7 years of age. There are certainly reasons why it is advantageous to perform the operation at an earlier age than originally recommended by Cantwell. My own patient, operated on in 1901, was a boy of 7 years, otherwise healthy and well developed. The meatus was beneath the pubic arch, and the foreskin hung down in a well-marked apron. On dissecting up the mucous membrane over the sulcus and the glans penis, it was found impossible to avoid injuring this portion of the mucous membrane to such an extent that it had to be discarded and cut away entirely. As a consequence, the new made urethra was too short; even after thoroughly mobilizing it and drawing it well forward it could only be made to reach

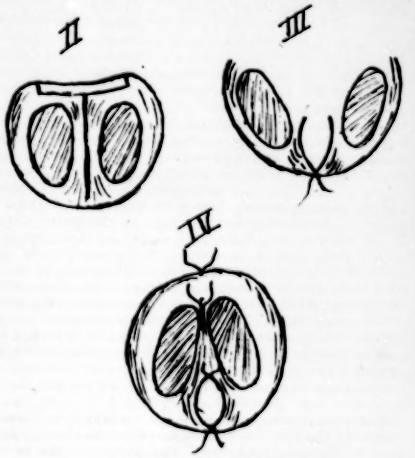

Fig. 2.—After Cantwell.

a point well behind the glans penis. It was therefore found necessary to adopt the suggestion made by Parham to combine Van Hook's method[3] of tubular canalization with Cantwell's urethral transplantation. Van Hook, in a case of hypospadias, made a canal by tunneling through the glans penis, and then lined this canal with a pedunculated flap, converted by suture into a tube, taken from the preputial hood. The distal end of this flap, now become proximal, was finally sutured to the distal end of the urethra, so completing the canal.

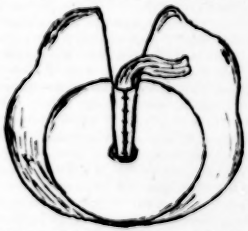

Fig. 3.—Van Hook's operation; forming preputial lining for tunnel through glans penis.

In my case a sufficient flap was cut from the underlying preputial apron, was then converted into a tube by suture, and finally was drawn through a tunnel made through the glans penis. It was then united over a soft catheter to the already formed proximal portion of the urethra. The remaining steps of the operation were

3. Annals of Surgery, vol. xxiii.

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carried out in accordance with Cantwell's recommendations. The success of the operation was surprising. With the exception of a pin-hole opening situated a little in front of the pubic arch, there was healing throughout by first intention. At the end of ten days the perineal drainage was withdrawn, and three weeks after operation the boy was exhibited to the Falls City Medical Society. He had been instructed to retain his urine for several hours before exhibition, a thing utterly impossible before operation. Just as he was placed on the table he found it impossible to longer retain his urine, and discharged several ounces over the table and carpet in a stream from a meatus situated at the end of the glans penis.

Singularly enough, I found the closure of the pin-hole fistula more difficult than the original operation. Having failed in one effort to close it, opportunity has not yet presented to successfully deal with it.

This boy's continence has markedly improved. A recent report informs me that there is occasional dribbling by day and sometimes wetting of the bed at night; but this latter is not by dribbling, but by voiding at one time a bladder full of urine.

In conclusion, I desire to say that I feel satisfied that no other operation, in my hands, could have produced anything like so good a result in anything like the short space of time.

DISCUSSION.

Dr. F. W. Parham, New Orleans—I think the condition of epispadias, although an extremely rare condition, merits our serious consideration, because when present it is so very distressing. I find myself in the singular position of making suggestions in the treatment of a condition wherein I have not had a single case to operate on. However, I have had the good fortune to assist my friend, Dr. Martin, in such a case, and I have seen another case in which Dr. Fenner has obtained a very satisfactory result by the method commended in the paper of Dr. Bullitt. The old operations of Nélaton, Rosenberger and others did not fulfill the conditions because, although they effected the re-establishment of the canal, this was too pouch-like, and the incontinence was not relieved. Beside, the time required was too long. None of the later operations have proved satisfactory, except that of Cantwell of Trenton, endorsed by Dr. Bullitt in his paper. I have looked up the subject thoroughly, and I find no procedure that can compare with it in simplicity and results. Cantwell's operation at once places the canal below the organ, where it belongs, and the whole operation can be finished at one sitting. In the normal penis the union of the corpora is very intimate, indeed, so intimate that the fibers of one side seem actually to decussate, but the connection is very frail in the epispadiac condition. English, in fact, reported one case where the corpora were completely separated. In some cases the separation may be made without cutting. In the technic of the operation I have learned in the case in which I assisted Dr. Martin that it is well to carry the dissection well up under the pubes so as to mobilize the trough freely, and then to make the canal carefully before separating the corpora and carrying it to its place under the organ. One difficulty in the operation is to get the canal placed far enough forward in order to allow for retraction. In some cases a second operation will be required to locate the meatus properly. I believe the addition of the Van Hook plan, as carried out by Dr. Bullitt, will prove of decided benefit, because it assures the meatus at the proper point, and I feel personally indebted to Dr. Bullitt for showing by his case that it has distinct advantages.

Dr. E. D. Martin, New Orleans—My case amounted almost to exstrophy of the bladder. It was necessary to dissect an anterior flap from the pubis in order to complete the upper border of the urethra. This was sutured on either side and the tube, being completed, was buried between the corpora. The case has been greatly improved, though the incontinence has not been entirely overcome. This I hope to correct with the use of paraffin injections.

In regard to hypospadias, I would like to make a suggestion which I think is of some value. I had very recently a case in which I tried the suggestions of both Rochet and Nove-Josserand. The method of the former of making a tube of scrotal tissue and passing it under the skin was only partially successful. The latter, of wrapping a Thiersch graft around a catheter and pulling it through the slit, failed also, and I then divided the corpora the full length of the deformity, laid them wide open and covered the entire raw surface with a Thiersch graft. This succeeded beautifully. I then brought the corpora together, forming a deep groove all the way. I pared the edges freely, held the corpora in position with mattress sutures and sutured the margin of the skin with catgut. All united, with the exception of a small fistula on the junction of the newly-formed canals, and I agree with Dr. Bullitt that these are always difficult to close, and that perineal drainage is always necessary to insure success.

Dr. Erasmus D. Fenner, New Orleans—I had a case in which I had an opportunity to treat acute epispadias, and my case was very considerably below what I believe to be the proper age limit in these cases. The patient was not quite five years of age. Fortunately for me, however, the little boy was remarkably intelligent for his age, and assisted me in every possible way by his great patience, thus overcoming the objection that has been made to doing the operation at this age. In connection with this operation I wish to say that my knowledge of the procedure is due entirely to the excellent recollection of my friend, Dr. Parham. Shortly afterward I had an opportunity of seeing Dr. Martin's case, and the steps of the operation were simply the mere separation of the parts by Cantwell's procedure. I was impressed, first, by the expansibility of the tube, and second, I was impressed by the fact that it was free, so that it could easily be drawn up above the urethra after it had been placed in its position. I was further impressed by the absolute necessity of using a silk suture. Up to that time I had used chromicized catgut. I decided to use internal silk suture. The approximation was satisfactory, and for a few days the case did well, but shortly afterwards the parts began to swell, and there developed between the skin and the urethra a large abscess which subsequently required opening up of the skin, and breaking the abscess and allowing it to escape. Fortunately, however, the operation was not associated with any serious fistula in the new canal, and after a rather tedious convalescence, my little patient recovered, having a perfectly normal restoration of the anatomy, although I found that the meatus was placed a little too far back for the normal condition. I have not yet made up my mind how to unite that. I am convinced, however, if we could let the patients wait until they are 10 or 11 years of age, so that they can have control of the bladder, we could get much better results.

I have suggested this same procedure for hypospadias. Not long ago I had an opportunity of operating on a patient suffering from hypospadias. In this case, we concluded that we would leave out the buttonhole in the peritoneum. The patient left after the operation in a very much worse condition than before. Taking this case into consideration, as well as my case of epispadias, it would seem that the buttonhole in the peritoneum should not be omitted.

Dr. James B. Bullitt, Louisville—The speakers have testified that this operation gives fairly good results, and in some cases surprisingly good results. I would have liked to have heard from some of the other gentlemen who have employed other methods in regard to what they have been able to accomplish. I have only had two cases of this condition, and the first case was operated on by the method usually applicable to hypospadias, and the patient was not improved, and I have no doubt that there are others who have had the same experience. So it is especially gratifying to me to have accomplished the result I did in the second case. Outside of this small fistulous opening the patient was cured, and he got up inside of three weeks' time. I agree with Dr. Fenner that the drain-

age of the bladder through the perineum is always necessary. I believe also when you have a fistula it would be better to drain the bladder through the perineum.

What part of the operation is the most difficult? In the first place getting the mucous membrane clear to the end of the glans penis. It is nearly always impossible to find sufficient mucous membrane to reach to the end of the glans penis. While the urethra can be drawn out surprisingly, it also retracts afterward somewhat surprisingly. I am sure that Dr. Parham is entitled to great credit for the suggestions he has made. I believe in the case I operated on, if I had separated the corpora cavernosa further back, I would have had a better result, and this fistula would probably not have occurred. The third point is that the formation of the canal from the point where the abnormal meatus is situated is somewhat difficult. However, I believe from the success of this operation in my own particular case, and from these other operations that have been reported, that it is very much superior to any of the other operations that have been proposed.

TUBERCULOSIS OF THE MAMMARY GLAND.*

A. H. LEVINGS, M.D.
MILWAUKEE, WIS.

Dr. Scudder,[1] in an exhaustive article on "Tuberculosis of the Mammary Gland," states that an examination of the literature showed only eighty cases reported up to that time, twenty-three of which were rejected on account of imperfect data. This list, however, does not include twelve cases reported by Albert in his work on surgery.

Tubercular infection is so frequently met in the various tissues and glands of the body that it seems unusual that only fifty-seven well authenticated cases of tuberculosis in the mammary gland should have been reported up to 1898. It is, of course, to be expected that not all cases diagnosed as tuberculosis of this gland were reported, but had they been, the number would still be small, and the cases reported since 1892 are so few that we are forced to believe that the disease often goes unrecognized.

It is conceded that tuberculosis of the mammary gland is most frequently found in young women between the ages of 20 and 35, or during the period when the gland is functionally most active. A few cases have been reported as occurring before and after menstrual life. Roswell Park reported a case in a girl 12 years of age, and Mr. Payne saw an infant with a tubercular abscess of the breast, following which there was general tuberculosis and death. Several other cases have been reported at ages under 20. Cases have also occurred in women after 50 years, and even after 60 years of age. The condition is occasionally observed in men. In Dr. Scudder's eighty cases six were males, and in forty cases reported by Mandry one was a male. It is said that more than one-half of the women affected have borne children, and that in a considerable number of these the process has originated during pregnancy.

It is held by the great majority of writers, and this I believe to be true, that the process is to be observed most frequently in spare, weakly, anemic individuals, in those who have inherited the so-called scrofulous diathesis or tubercular predisposition, and especially in such as have a parent or near relatives who have or are suffering from tuberculosis. Tubercular infection of the mammary gland may be primary or secondary. When primary it may occur through the milk ducts or through abrasions of the nipple or of the skin covering the breast. It is thought that the great majority of cases are secondary to a tubercular process in the lymphatic glands of the axilla or neck, or to one in an adjacent rib, pleura or lung. The focus, however, may be situated in distant bones, in the genito-urinary or intestinal tract, in the peritoneum or skin. When secondary and the foci are situated more or less remotely, infection may occur, and frequently does, through the arterial circulation. Infection undoubtedly takes place, however, in many of these cases through the lymphatic circulation by a retrograde process. Retrograde infection or infection carried against the lymph current is seen every day in cases of carcinoma. A case of epithelioma of the nipple came under my observation in which there were metastatic growths in the membranes of the brain, these having taken place through the lymphatic circulation. It is also of frequent occurrence in carcinoma of the mammary gland to observe enlargement of the lymphatic glands of the neck. Although it is held that the bacillus of tuberculosis is non-motile, it is probably true that these bacilli are often carried against the normal lymph current by cellular action or by reverse currents. Infection may also occur by contiguity of structure in cases where the submammary tissues, the adjacent ribs, or parietal pleura are implicated. If infection occurs through the milk ducts, the process must be situated primarily within the ducts or the acini. If the bacilli reach the breast through the circulation, lymphatic or arterial, they would naturally be arrested in the tissues directly surrounding the alveoli, as here the arteries which supply the gland break up into a network of capillaries, while the lymphatic radicles take origin within and about the lobules of the gland. When infection occurs through contiguity of structure the connective tissue of the gland will be primarily implicated.

THE ANATOMY.

It might be well in this connection to review briefly the anatomy of the lymphatics of the chest for the purpose of determining the possible channels of infection to the mammary gland through these vessels. It is generally held that the lymphatics in the mammary gland of the female are more highly developed than they are in any other gland in the body. They are generally divided into two groups, the superficial, which passes to the axilla, and the deep, which follows largely the branches of the internal mammary artery and goes to the anterior mediastinum. The axillary glands may be divided into three chains. The first, or superior, lies along the lower border of the pectoralis minor muscle, and is in relation with the long thoracic vessels.

It receives most of the lymphatics from the upper and outer portion of the mammary gland, the front of the chest and from the abdominal wall above the umbilicus. The second or middle chain is situated in the adipose tissue of the axilla and on the inside of the axillary vein. It receives the lymphatics largely from the upper extremity, and the efferent vessels from both the superior and posterior chains. The posterior group lies along the posterior border of the axilla in relation with the subscapular vessel. It receives the lymphatics from the scapular region of the back and from the inner and lower quadrant of the breast. The deep lymphatics of the gland anastomose freely with the superficial and with those from the pectoral fascia. Some of these vessels from the outer side go to the axilla, while others accompany the intercostal vessels and enter the

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right lymphatic or left thoracic duct. The deep lymphatics, which originate in the inner hemisphere of the breast and in the inner portion of the pectoral muscles, penetrate the second, third and fourth intercostal spaces and communicate with the glands, six or eight in number, which are situated along the internal mammary artery.

LYMPHATICS OF THE LUNGS.

There are two sets, the superficial and deep. The superficial is placed beneath the pleura as a minute plexus covering the outer surface of the lung, communicating freely with the pleural cavity, and invading the interlobular tissue. It terminates at the root of the lung in the bronchial glands. The deep set commences in the mucous lining of the bronchial tubes and accompanying the vessels terminates in the pulmonary lymphatic glands situated along the walls of the small bronchi and in the angles of their subdivisions. There are about forty glands in the right lung and thirty in the left. Efferent vessels from these pulmonary glands join with the superficial lymphatic vessels and end in the bronchial glands. The efferent vessels from the bronchial glands communicate with the mediastinal glands and traverse the tracheal and esophageal glands, terminating on the right side in the right lymphatic, and on the left in the thoracic duct. There may be, then, a direct circuit of lymph by retrograde action from the neck and axilla to the breast, and from the lungs, pleura and pulmonary and bronchial glands through the mediastinal glands and their lymphatics along the branches of the internal mammary artery to the breast. The arteries which supply the breast are from the thoracico-acromialis to the upper lobes, from the long thoracic and external mammary to the outer lobes, and from the anterior intercostal and perforating branches of the internal mammary to the inner lobes. Each gland consists of from fifteen to twenty tubo-racemose glands bound together by connective tissue and united into a hemispherical mass by adipose tissue. Each lobe has its own excretory duct. The acini, either sacular or in the form of tubules, are grouped together to constitute lobules. They are limited by a distinct membrane and lined by either columnar or polyhedral epithelial cells. The blood vessels run mostly in the superficial tissues radiating toward the areola, and from these vessels branches penetrate into the glandular mass and pass between the lobules, giving off twigs which break up into capillaries enclosing the alveoli. Naturally, then, if the bacilli are brought by the blood vessels to the gland they would become implanted on the alveoli or they might pass through their walls into the interior. The latter unquestionably may occur, and does during lactation. If the bacilli are arrested in the capillaries the tubercular process set up would be an interacinous one. If they pass into an acinus or duct and become arrested the infectious process would be within the acinus or duct. The lymphatics also run in the connective tissue stroma of the gland and commence as a network of capillaries within and around the lobules. Their radicles have practically the same distribution as have the capillary blood vessels. In consequence of a retrograde action in the lymph current the bacilli would also become implanted about the acinous wall, or possibly carried into its interior.

PATHOLOGY.

The bacilli being implanted within the tissues of the gland set up an irritation which is followed by the usual pathologic change. Round cell infiltration occurs with the formation of epithelioid and giant cells. The bacilli are often to be found in the exudate, while tubercles or tubercular masses with caseation or pus formation often occur. It is characteristic of those cases which remain for a long time as hard nodes for the microscope to show the formation of a large quantity of interacinous connective tissue. In a considerable number of my cases some of the hard nodes were made up largely of dense fibrous tissue situated between sparsely distributed acini. In these cases there will be areas of distinct caseation or those in which giant cells are to be found or the bacilli of tuberculosis and even in some in which these conditions are not demonstrated the axillary glands will show caseation and the bacilli of tuberculosis. In cases in which the infection is directly through the milk ducts or glandular structure, the process, aside from its situation, will be much the same as before with the exception that in a considerable number of these pus may be forced from the abscess cavity by pressure along the ducts and from the nipple.

SYMPTOMS AND COURSE.

The clinical picture presented by a tubercular process within the breast is a variable one. It will depend largely on the stage of the disease during which the examination is made, on the number of foci primarily infected, and also on the fact as to whether the process is primary or secondary. In many of these cases, as can be readily appreciated, the primary disease will be of such importance or severity that the condition of the breast, even if severe, will be of little or no moment. The patient's attention may first be called to the process by pain which is usually early experienced, pretty continuous and has a dull, heavy, aching or burning character. Not unfrequently, however, the pain is scarcely noticeable, and the patient's attention is first attracted to the breast in consequence of finding therein a node or nodes. These nodes, and there are usually more than one, are reasonably hard, not very sensitive and quite irregular. They can not be distinctly separated from the glandular structure, and ordinarily vary in size from that of a hazel nut to half an inch or an inch and a half in diameter. They are very seldom round, but are flat or have a very irregular contour. These nodes are often distinctly separated, but still lie in the same quadrant of the breast. The fact of their being multiple nodes is a characteristic of the disease. The gland as a rule is not enlarged, and on simple inspection nothing may be seen. The axillary glands during this early stage are enlarged and may be palpated. As the condition progresses the nodes increase in size, though very slowly, possibly coalesce, become more elastic, and finally impart a sense of fluctuation. They may become adherent to the skin and the contents of the abscess be discharged through a fistulous tract. Occasionally several fistulæ are formed in consequence of the breaking down of many nodes. While ordinarily the gland is not enlarged during the first stage of the disease, later, if pus in any considerable amount is formed, the breast becomes noticeably enlarged. If the process is situated near the posterior surface this may become attached to and quite immovable from the pectoral fascia. The nipple, in a goodly number of cases, is retracted.

DIAGNOSIS.

The diagnosis will depend on the antecedents and appearance of the patient, the history of the case and the physical examination. The antecedents will often show scrofula or tuberculosis. The appearance is often that of a thin, anemic, weakly woman of lessened resist-

ance, while the history may establish the probability of tubercular processes in other parts of the body. The examination will usually disclose, if made before the formation of an abscess, one, more frequently two or three, quite hard, very irregular, well defined, not specially sensitive nodes which are inseparable from the glandular structure. The axillary glands are enlarged—it is stated in two-thirds of the cases—and the nipple often retracted. When pus has formed the use of the hypodermic needle and the microscope will materially aid in establishing the diagnosis. When fistulæ have formed, the process being chronic, the diagnosis is easy. The process must be differentiated from scirrhus, actinomycosis, benign growths and from cysts due to chronic inflammatory processes. In scirrhus the patient is usually more than fifty years of age. The node is single and harder than in tuberculosis. The history of the cases and the cachexia are different. In actinomycosis the thickened, indurated, leathery skin, the yellow granules and the use of the microscope will establish the diagnosis. In benign growths, such as fibroids, the fact that they are usually single and distinctly encapsulated without enlargement of the axillary glands, will be sufficient to distinguish them. Multiple cysts, especially when of small size and due to a chronic inflammatory process, present the greatest difficulties perhaps in the way of diagnosis. Many of these small cysts are not to be differentiated by touch from solid nodes. In these cysts, however, the axillary glands are not usually enlarged, the history of the case is often different, and the use of the hypodermic needle will afford valuable assistance.

I have been able to find scarcely more than a dozen cases reported up to date in the United States, and believing that very many of the cases of chronic mastitis and most of those of chronic abscess of the breast are really tubercular, to say nothing of those cases in which there are distinct nodes running a chronic course, I am forced to the conclusion that in the past there has been in the great majority of cases of tuberculosis of the mammary gland a failure to make a diagnosis.

REPORT OF CASES.

Seven cases of tuberculosis of the mammary gland, all in females, have come under my observation during the past two years. Five of these patients were single. Of the two who were married but one had borne children. In three cases both breasts were affected.

CASE 1.—The first patient was 35 years of age and single. She had noticed for a year and a half an enlargement first in the right and then in the left breast. In placing the palm of the hand flat against the gland many small indurations could be felt. These seemed of considerable size when the breast was pinched up between the thumb and fingers. The nodes were hard, irregular and reasonably well defined, but seemed to be a part of the glandular structure. The axillary glands on both sides were implicated. The nipples were not retracted. The patient's condition, aside from this, was reasonably good.

Both breasts and axillary glands were removed. The breasts were found dotted with small circumscribed abscesses, which in some cases were directly connected with the ducts and in which the bacilli of tuberculosis were demonstrated to exist. Patient made a good recovery. In this case there was nothing in the patient's history or antecedents indicative of tuberculosis and there were no other foci anywhere in the body which could be detected.

CASE 2.—An unmarried woman, 30 years of age, with a predisposition to tuberculosis, noticed seven months previous to examination, a gradually increasing, hard swelling in the right axilla. Latterly the swelling had occasioned such extreme pain in the right arm that it was scarcely endurable. During the past two months several small, hard, well circumscribed indurations could be felt within the breast structure.

The breast was excised, and with it the major portion of the pectoral muscles. An abscess of considerable size situated in the axilla and adherent to the pectoral muscle was unavoidably broken into. A large number of axillary glands were so intimately adherent to the axillary vein that excision of a portion of the vein was necessary. This was done after double ligation with catgut. The glands and abscess were causing severe pressure on the brachial plexus, some of the smaller branches of which were excised with the abscess. The breast was found on multiple incision to contain a large number of small collections of pus, many of which were not larger than a pea. Some of these were in direct connection with the ducts. The patient had never complained of anything more than an occasional burning pain within the breast.

Patient's family history was as follows: Her father was drowned, mother died of pneumonia at an advanced age, an uncle and a cousin died of consumption. There were three children, all of whom are living. The glands of the axilla showed numerous tubercular bacilli as well as many points of caseation. The process in the breast in this case was evidently secondary to the infection of the axilla.

CASE 3.—Mrs. R., aged 40, mother of three children. Very spare in figure, anemic, presents the appearance of one having but slight physical resistance. In her family history a relative of her father was supposed to have died of tubercular peritonitis, while a brother had his leg amputated for tuberculosis of the bone. After the birth of her third child eight years previously she suffered from a mammary abscess, and has been since in poor physical condition. For the past few months the patient had noticed a small, hard lump in the left breast. At the time of the examination there were two very noticeable, quite hard, reasonably well-defined nodes which evidently were inseparable from the glandular structure. One was in the upper and the other in the lower quadrant of the left breast. In the right breast there were also two or three indurations. From one of these, when pressure was made, there was a discharge from the nipple. The nipples were not retracted. The glands in both axilla were enlarged.

The breasts and axillary glands were removed. The pathologic findings showed that the glands were tubercular. The patient, one year after the operation, shows indications of pulmonary disease.

CASE 4.—An unmarried woman, aged 31, had been for several years in delicate health in consequence of a chronic uterine and ovarian inflammation. She had worked hard as a nurse and was thin in flesh, debilitated and anemic. Her family history shows the father and mother to be living and well. There is no tuberculosis in the immediate family. A brother of the father and a sister of the mother, however, died of consumption. For four years patient has noticed a gradually-increasing enlargement in the right axilla. For a few months there has been some soreness and hardness in the right breast with slight fever. The axillary glands have caused the patient a good deal of pain. In the breast there is an illy-defined, not well circumscribed induration situated in the upper quadrant. If the breast is picked up between the thumb and fingers there is a marked induration.

The breast and axillary glands were removed. The breast, on incision, showed that the hardened area had undergone caseous degeneration. The axillary glands were found to extend along the vessels filling more or less the axillary space as far as the clavicle, making a section of the pectoral muscles necessary in order to remove them. Many of the axillary glands were in a state of caseous degeneration, and contained bacilli in large numbers. The patient, since the operation, has shown decided improvement, and although at times annoyed by a cough she has gained in flesh and strength.

CASE 5.—A single woman, aged 44. Father and mother lived to be old. No tuberculosis in family. Patient had a severe pulmonary hemorrhage twenty years ago and a second one year ago. Both from the right lung. In the right apex there is prolonged expiration with much rattling and a decided dull-

ness. There is considerable cough and some expectoration. The latter contains tubercle bacilli. During the last eight months there has appeared in the left breast, just above the nipple, a mass two inches long by half an inch in thickness. This area is quite hard, and from it several strands pass out to the border of the breast, while two or three run in toward the nipple. The axillary glands are enlarged. Patient, although having some continued fever, looks comparatively well.

Operation was not advised on account of the condition of the lung.

CASE 6.—Female, aged 30, of spare figure, is anemic and not strong. Never, however, has suffered any serious illness. Family history good. For several months she has noticed hardened areas in both breasts. The condition has caused a good deal of anxiety and the patient has apparently lost flesh and strength. Has no cough. On examination there are several indistinct and separate hardened areas in each breast. Nipples not retracted. Glands in both axillæ enlarged.

Axillary glands and breasts removed. Sections show hardened areas in the breast and the axillary glands to contain caseous material in which the bacilli of tuberculosis are found.

CASE 7.—Female, aged 36. Married nine years; never pregnant. Spare in figure, weak and anemic. Never has been ill. Family history good. She has noticed in the right breast more or less of pain for the past three months, also a swelling, which has gradually increased in size. At the time of examination there was a reasonably soft, fluctuating growth the size of a hen's egg situated in the upper and outer quadrant of the gland.

The mass was only mildly sensitive on examination. There were also several small indurations in the breast. The axillary glands were distinctly enlarged. Patient's temperature was not above 99. In the outer quadrant of the left breast there was also a soft, not well-defined and fluctuating mass as large as a small orange, while directly above the nipple were two hard and not well-defined indurations. Glands in both axillæ were enlarged.

The patient refused to have the breast entirely removed, consequently free excisions were made of the fluctuating masses, these excisions being made to include the indurated areas. In cutting across the ducts many of these were seen to be in intimate relation with the abscess cavities and to contain pus. The pus in both cavities was found on microscopic examination to contain the bacilli of tuberculosis.

Of these seven cases two were secondary to tuberculosis of the axillary glands, while one was secondary to tuberculosis of the lung. Of the six cases operated on five seem to have completely recovered.

TREATMENT.

This will depend largely on the general condition of the patient and the extent of the disease in the breast. If the process in the gland is secondary to a severe and non-curable condition situated elsewhere in the body nothing more than palliation should be practiced. If the infection in the gland is secondary and the primary focus not severe or amenable to treatment, then there should be an effort made to eradicate the infection in the gland. If there be but a single collection of pus without adjacent nodes, indicating but a single focus of infection, the abscess may be incised, washed out thoroughly, curetted and drained. This course has been successfully practiced, and is recommended by Warren. If multiple foci of infection exist, and they are confined to a single quadrant of the breast, this portion may be excised. It is, however, the better practice where dissemination has occurred to excise the entire breast. If the axillary glands are implicated, as they usually are, they should be removed.

CONCLUSIONS.

Tuberculosis of the mammary gland is not an unfrequent condition, but one which goes unrecognized. The process may remain for months, and even years, in the form of hard, irregular, reasonably well circumscribed nodes. Liquefaction and pus formation are secondary and later processes. Tuberculosis of the breast occurs with especial frequency during menstrual life. It occurs with greatest frequency in single women. The condition is more often primary than has been generally supposed. The tubercular infection often implicates both glands nearly simultaneously. Palliative treatment may be practiced when the process is circumscribed. When the processes are diffuse radical measures should be recommended.

DISCUSSION.

DR. B. B. DAVIS, Omaha—A case under my observation had a very large tumor and the axillary glands were considerably involved. At one point in the breast there had been a perforation and fistula with a history of considerable material being discharged, which under microscopic examination was demonstrated to contain tubercle bacilli. In the other case, I think I should have erred had I not recently read a very able article by a German operator, in which he discussed in detail the operation. This was in a comparatively young woman, about 30 years of age, if I remember rightly. Although there seemed to be one nodule, it was separate and I found on examination that it consisted of three different nodules, agglutinated and in a state of degeneration. All I did was to excise that portion of the process containing the nodules. There was no enlargement of the axillary glands and the patient recovered. In the other case I did the same kind of an operation that I should have done if the case had been carcinoma of the breast.

Another point is in regard to the temperature. In these tubercular cases which have existed for any considerable length of time we nearly always have some rise of temperature in the evening, and frequently subnormal in the morning, and this was particularly characteristic in the first case I mentioned. I have been under the impression that a good many of these cases in which there is a hard nodule of the breast and the breast is removed, supposedly as a carcinomatous case, are in reality tubercular, and I believe tuberculosis of the mammary glands is a much more common condition than is generally supposed.

DR. T. J. SULLIVAN, Chicago—There is no reason why tuberculosis should not be found in the mammary gland, just as it is found in every other portion of the body, and I believe that there is no tissue of the human body that is not liable to be infected. I think we can even go further and recall the statement of some of the authors that the tubercular germs in a greater or lesser number exist in all our bodies and that sooner or later we may, any of us, have it. That being true, we may find the tubercular germs in any portion of the body.

I had a case of this condition occurring in a woman, of average health, mother of ten children, who had always enjoyed good health, and had been compelled to work hard to maintain the family. She had had swelling in the breast, appearing about six months previously, after working hard. Previous to presenting herself to me for examination she had been examined by a physician, who informed her that she had carcinoma. The appearance would indicate that she was suffering from carcinoma. I placed my hand on the breast immediately over the tumor and detected a small, hard nodule. In presenting her to a class of medical men the following diagnosis was made: Retraction of the nipple; hard nodule; no axillary enlargement; healthy and well; no pain.

She was kept under observation for a couple of weeks, at the end of which time the nodule had enlarged slightly. I then was in considerable doubt as to the nature of the tumor and removed a small wedge under local anesthesia. Pathologic examination of this wedge revealed the fact that it was due to an inflammatory process. I then decided to remove the whole breast in a radical operation, including the axillary glands. I did so, and the appearance of the nodule presented to my mind the appearance of scirrhus of the breast,

and a good pathologist who was present at the observation said that undoubtedly it presented all the appearances of scirrhus. The operation was complete, however, without further attack on the axillary glands, and subsequent pathologic examination revealed marked tuberculosis, which healed rapidly.

It is time to call attention to this subject and give these patients the advantage of early operation.

DR. WILLIAM KNIGHT, Hartford, Conn.—Just a little criticism of one point in regard to abscess. Dr. Levings said you could open the tumor and drain thoroughly. The tendency in treatment of those cases is to prevent absorption. It seems to me that it is folly to interfere with it. It also seems to me much better to open it and drain thoroughly with plenty of absorbent cotton. I think we will get much better results by the treatment of abscess in this manner.

DR. ANDREW W. MORTON, San Francisco—I have had experience with only one case which puzzled us considerably. We used the tubercular serum to make the diagnosis, and got the characteristic reaction which we usually get in using this serum where there are tubercles. After the removal of the gland the microscopic examination showed the diagnosis to be correct.

DR. A. H. LEVINGS, Milwaukee—I may add that one additional case has come under my observation since this article was written. Of my cases of tuberculosis of the mammary gland one was secondary to a tubercular process of the lungs while two were secondary to tubercular processes in the axilla. The others, so far as I was able to determine, were primary within the breast itself. In some of these I think the infection was through the milk ducts. In others the infection was through the circulation, arterial or lymphatic. I am very confident that we have been mistaking these cases for carcinoma because the two conditions may present practically the same symptoms, in that there is a hard nodule, retraction of the nipple and enlargement of the axillary glands.

In regard to the treatment of opening and curetting an abscess, I am of the opinion that in a case in which there is but a single abscess with no out-lying nodes, this treatment may be recommended, and probably will, if properly carried out, result in a large number of cures. This, in fact, is the treatment generally which we are accustomed to follow in cases of tubercular abscess.

ABSCESS OF THE SPLEEN.*

WALTER M. SPEAR, M.D.
ROCKLAND, ME.

Abscess of the spleen is rare, and when a case falls into our hands and is operated on successfully, it is worthy of record.

About the middle of May, 1901, I was called to see Mr. A., and obtained the following history:

History.—American, age 74 years, weight 211 lbs. Family history: Mother and one sister died of consumption. Father died of some brain trouble. Previous history: Has had two severe falls, the last one two years ago, from which he never fully recovered. Jan. 10, 1901, was seized with a severe attack of influenza, which completely prostrated him. At the end of three weeks the temperature and pulse were normal. He has never lived in a malarial district and has never suffered from typhoid or malarial fever. Since the beginning of his sickness he has constantly lost in weight.

Present Illness.—Patient in bed, anemic, covered with a cold perspiration, very nervous, anorexia, night sweats, slight constipation. Complains of numbness in legs and feet, slight though constant pain in left thorax just above lower border of ribs. At times he is pressed for breath, which appears to be due to his nervous condition.

Physical Examination.—Temperature normal, pulse 100, weight about 175 lbs., heart's action very feeble, slight tenderness on deep pressure under lower border of ribs on left side, reflexes normal. I thought that his condition was due to the severe attack of influenza which he experienced. Gave him strychnin and tonics. The improvement in his condition was marked, so much so that in a few days he was up and downstairs. I did not see him again until May 30, 1901. His physician then stated to me that the patient, while being carried upstairs on his son's back the night before, cried out that something had given way in his left side and that he was very faint. He was immediately put to bed and stimulants administered, to which he at once responded. I saw him the next morning and found his pulse 64, and temperature normal. He was very nervous, had a sallow cachectic look, and had lost a great deal of flesh. He complained of constipation, and of severe pain in left hypochondrium. Some edema of legs and ankles was present. His heart was much stronger. Hard tumor in left side extending above lower border of ribs, tender, no fluctuation, urine negative. I considered the tumor malignant, which diagnosis was coincided in by several physicians. Advised exploratory laparotomy.

Operation.—June 8, 1901. On examination under ether I found a hard, non-fluctuating tumor extending from above the lower border of the ribs downward to the crest of the ilium and inward to the linea alba, smooth, most prominent just below ribs. Incision made over most prominent part of the tumor. Found an enlarged spleen very dark in color, which was bound down by numerous adhesions. The anterior surface was comparatively free. Anterior wall of abscess thick, posterior wall very thin, indicating that it would have soon ruptured, allowing contents to escape into abdominal cavity. Because of the thinness of the wall and the numerous adhesions I considered an attempt at removal dangerous. Walled off with gauze and made an incision into the spleen through which was evacuated two quarts of creamy pus mixed with a little blood and cheesy-looking material. Cavity curetted, washed out and spleen sutured to abdominal wall with chromicized catgut, iodoform gauze drain. Convalescence rapid and uneventful and in five weeks he was up and dressed. On Aug. 2, 1901, he suddenly became unable to swallow. Aphasia and hemiplegia of the right side appeared, and after this he rapidly failed and died Aug. 4. 1901. Unfortunately an autopsy was not obtained.

Report of Dr. C. D. Smith, who made an examination of the pus: "I fail to find tubercle bacilli, yet the presence of calcareous material is strong evidence of that nature of the abscess. It contains a multitude of lymphoid cells, much pus, a few crystals of hematoidin showing that there has been a hemorrhagic area in the organ or an embolus, and a few bits of characteristic yellow elastic tissue and fragments of spleen tissue."

Several cases of abscess of the spleen have been reported in which the pus was sterile, and from the absence of any previous septic condition, and the constant normal temperature, I am inclined to think that it was sterile in this case.

I ought to have made a correct diagnosis, but was led astray by the absence of fever, the slight pain, the rapid emaciation and extreme constipation. A blood count would have been of great assistance. Bessel-Hagen thinks the considerable increase of leucocytes in the blood of the greatest diagnostic significance.

The condition in this case was probably due to an embolus lodging in the splenic vessels which, on account of the slowness of the blood-current in terminal arteries, are peculiarly susceptible to the lodgment of emboli.

SUMMARY OF THE LITERATURE.

In looking over the literature on this subject, I have collected 65 cases, 23 of which occurred after an attack of malaria or typhoid fever, 1 after yellow fever and 3 after appendectomy. The others were ascribed to various causes, such as trauma, disease of heart, sudden chilling of the body after excessive heat, tuberculosis, anthrax, alcoholism and exhaustion. Eight cases in which the

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. A. J. Ochsner, J. E. Moore and De Forest Willard.

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etiology was doubtful were probably due to malaria, and in eleven the etiology was unknown. Metastatic abscesses have been reported following osteomyelitis, gunshot wound of the knee and amputations.

Grand-Mourset reports 57 cases, 20 of which were due to malaria; 9 of them diagnosticated, with 8 recoveries, while 11 were recognized only at autopsy. From this it would seem that more cases occur than we are led to believe, which are not diagnosed either before or after death.

ETIOLOGY AND DIAGNOSIS.

The hyperemia of the spleen during malaria and typhoid renders it particularly susceptible to inflammation and abscess formation. All writers agree that the diagnosis is extremely difficult. The chief diagnostic symptoms are history of infectious disease, pain in left hypochondrium which may radiate to left shoulder, night sweats, anemia, loss of appetite and usually chills. Fever may or may not be present; if present, it is of little significance, as it may be due to the original disease. Occasionally extreme constipation is present, but more often diarrhea. Blood count shows increase of leucocytes (Bessel-Hagen). Tenderness on deep pressure usually present in the beginning of the attack. Fluctuation is of value as a diagnostic sign only in those cases which are palpable under the abdominal wall.

In such diseases as malaria and typhoid, in which there is commonly an increase in the size of the spleen, the increase alone is not symptomatic of abscess formation, but if the increase in dulness is progressive, and, added to this there are one or two or all of the above-named symptoms, it is at least very suggestive of abscess of the spleen.

If an embolus lodges in the spleen, it may be some time before any enlargement is apparent, and, in fact, I think that a small abscess may form in this way, become encapsulated, remain latent for a long time, and then either be absorbed or receive a severe blow or strain, which may cause a rupture of the capsule, after which a rapid increase in size of the spleen becomes apparent, or several abscesses may coalesce, forming one large abscess. I believe that this occurred in the case described above, and that the abscess ruptured into the substance of the spleen at the time he cried out, while his son was carrying him upstairs. From this time on the increase in size was remarkably rapid.

PROGNOSIS.

If recognized and operated on sufficiently early, the prognosis is fairly favorable. If not operated on, the abscess may rupture into a hollow viscus and the pus be evacuated by means of that organ. More often it will rupture into the peritoneal cavity and death ensue. Three cases among the sixty-five reported above recovered after rupture of the abscess, one opened into the cecum, one into the left lung, and one into the left lung and stomach.

Death of the patient can be attributed more often to the debility following such diseases as malaria, typhoid and tuberculosis than to the operation or the abscess itself.

TREATMENT.

This is purely a surgical disease. In a few cases splenectomy has been performed, but in order to do this operation successfully the diagnosis must be made very early in the course of the disease, before adhesions have formed. Bessel-Hagen states that splenectomy for splenic, perisplenic and parasplenic abscess was performed seven times, three up to 1890, four in 1891. The same author reports two cases of splenotomy in which the abscess was reached by resection of a portion of the ninth and tenth ribs. Lauenstein also reports one similar case. In the greater number of cases aspiration was first employed, then later incision through the abdominal wall. Splenectomy is the operation to be preferred, but it is limited to those cases in which adhesions have not formed, and to those in which there is no danger of infecting the peritoneal cavity. By this operation we remove the entire organ and its contents at once, thus giving a clean wound, and a much more rapid and satisfactory convalescence. Until we are able to make an early diagnosis, splenotomy is the operation of necessity, and it should be chosen in those cases in which there is great debility and in those in which the abscess wall is thin.

I do not believe that aspiration is necessary in the majority of cases, and its use should be condemned. We should be able to make the diagnosis without its aid, and it subjects the patient to one more chance of infection.

In the early stages of the disease, when the abscess cavity is small and the spleen has enlarged but little, if at all, it is very doubtful if the aspirating needle would throw any light on the diagnosis. Later, when the spleen has increased in size, and possibly fluctuation is present, its use is unnecessary and dangerous. If, after the exposure of the tumor, it is found to be very large, it is wise to aspirate before making a free incision into the spleen, thus diminishing the danger of infection.

CONCLUSIONS.

1. Abscess of the spleen is rare, but not as rare as we are led to believe.
2. It is most likely to occur after malarial or typhoid fever, because of the hyperemic condition of the spleen in these diseases.
3. Absence of fever does not preclude the possibility of an abscess.
4. Early diagnosis and operation are very essential, and give a fairly favorable prognosis.
5. Splenectomy is the operation of choice, but its application is limited.
6. Preliminary aspiration is an unnecessary procedure, and its use should be condemned.

ACUTE EPIPHYSITIS CAUSING A CONDITION SUBSEQUENTLY SIMULATING CONGENITAL HIP MISPLACEMENT.*

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OMAHA.

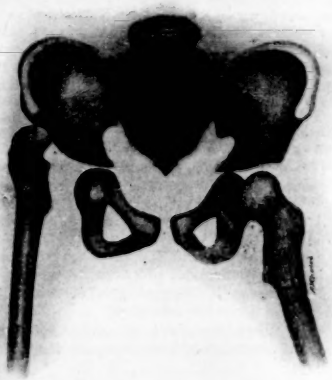
The writer uses the word misplacement, instead of dislocation, agreeing with Tubby, who says that dislocation can not properly be applied to a condition where the bone never was in place; the word misplacement seems to be better suited to describe the congenital condition. Epiphysitis does, however, result in a dislocation, and the condition might therefore be properly called pathologic dislocation of the hip, resulting from epiphysitis.

May 12, 1902, a female child of 2 years was referred to me by Dr. McClanahan. It was delicate, but well nourished. Appearances indicated congenital misplacement of the right hip. Indeed, all the conditions were typical of this condition.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. A. J. Ochsner, J. E. Moore and De Forest Willard.

The history, however, disclosed information which placed such a diagnosis in doubt. At 16 months, when the child had essayed to walk, she was normal, as far as the parents knew. At this time she suffered a severe attack of lobar pneumonia, from which she was convalescing when she had an abscess over the hip, which was incised. Resolution was speedy, and no trace was left on examination save a small scar one line in width and two lines in length, situated 3 cm. below and 1 cm. internal to the anterior superior spine. This history following pneumonia indicated that the abscess was pneumococcic. The history elicited from the attending physicians gave evidence of so speedy a resolution that articular or epiphyseal disease could scarcely be credited, though it was suspected. A periarticular suppuration predisposed by a misplaced hip, excited by the pneumococcus, was thought to be a possibility. The history gave no certainty as to the diagnosis of either congenital hip misplacement nor acute epiphysitis. There was now no evidence of hip disease. The limb was freely movable in all directions save abduction, which was somewhat restricted.

As before stated, the deformity was typical of congenital hip misplacement. A radiograph did not give information which would enable the inexperienced observer to make a differential diagnosis, but the writer ventures this observation, based on comparisons with a number



of radiographs of congenitally misplaced hips, all of which show a lesser space between the upper extremity of the femur and the pelvis. In fact, it may be said that the head of the bone invariably lies in contact with the ilium. The radiograph of the pathologic dislocation shows unusual distance between the pelvis and the thigh bone. This condition indicates not only absence of the head and neck of the bone, but an amount of soft tissue between the bones, which may explain why our best efforts at reduction are thwarted, except in rare cases.

In an attempt at reduction in this case by the Lorenz bloodless method, nothing could be accomplished. The absence of the head seemed to be strikingly apparent. The bone could not be impigned against the pelvis, as it can in cases for which reduction is ordinarily attempted. I was not satisfied with this attempt, however, neither were the parents, who were solicitous that everything be done to remedy the deformity and the disability. Therefore, the Lorenz-Hoffa cutting operation was done. The incision passed directly through the scar of the old incision, which enabled us to demonstrate the true character of the original trouble, i. e., a healed funnel-shaped depression over the capsular ligament indicated the site of the former sinus through which the destroyed epiphysis had been discharged in the form of pus and débris. A dissection into the former capsule showed this to be a closed cavity, practically a dense ligamentous structure, which precluded an approximation of the trochanters and acetabulum. I use the word trochanters advisedly, because none of the head, and practically none of the neck of the femur was demonstrable. The operation, therefore, was a failure. Literature furnishes abundant information on the occurrence of this condition, but little or nothing on the treatment of the deformity and disability. With the evident advancement in the treatment of hip misplacement, the writer has sought information from some of those who would be likely to avail themselves of anything offering encouragement in the handling of these perplexing cases. Wisner R. Townsend writes:

I have seen a great many cases and believe they should be treated as excised hips. Where there is no adduction and the upper end of the femur does not slip too much, a high shoe will suffice. If adduction exists I overcome it under ether, and put the limb up in marked abduction.

I have not treated any by the so-called Lorenz method, but could only believe it might be of use providing the upper end of the femur could be kept in the acetabular cavity, or in front and below the anterior superior spine, and a new socket thus formed with upper end of femur taking the place of the head, which has disappeared.

That these cases, when seen long after recovery, are very rarely correctly diagnosed is a fact, and I have had a number sent to me on the supposition that they were congenital dislocations.

Royal Whitman says:

I have performed both the open and the Lorenz method in these cases. The aim is, of course, to fix the femur in, or about, the acetabulum, that is, anterior to it, and to hold the limb finally for a long time in abduction and extension. One hopes thus to attain security.

One can hardly report on final results until many years have elapsed. My cases are still under treatment. Perfect cures are, of course, out of the question.

A letter from Professor Lorenz (whose work I had witnessed two years previously) replying to my letter requesting information along these lines, is of especial interest in this connection, and is as follows:

The diagnosis can always be made; the treatment can be the same as in cases of congenital hip dislocation, but never a perfect cure can be obtained. An improvement, however, is nearly always possible. Generally the head of the femur is more or less destroyed, sometimes nearly wanting, so that the upper extremity of the femur ends like a broomstick.

The first who called attention to these cases was my late master, Professor Albert. Reduction, as a rule, is scarcely possible; only one time I succeeded. In the other cases (they are rather frequent, these cases of pathological luxation after osteomyelitis or other infectious diseases), I change only the position of the leg, the flexion and adduction of the thigh being changed in an habitual abduction (lyorrhesis abductionem) and hyperextension of the thigh. I call this treatment, which is available also in other cases *die Functions verbesserung defecter Huftgelenke*. The condition for weight bearing is improved, the endurance in walking is augmented, but the limping will never disappear, although it can be lessened, too.

With this additional testimony, the writer would now be disposed to undertake this treatment, indorsed by practically all three of the distinguished authorities quoted, yet he would have reasons to doubt its usefulness in a case such as the one herewith reported. The treatment would seem rather severe to inflict, where so small a prospect of benefit is promised. The limp and disability, always unilateral in the cases, are really not so great as to be a serious handicap. Some years of experience will probably be necessary before the profession can decide fully the merits of intervention.

While the writer, with his limited experience, which was characterized by failure, would not desire to pose as a pessimist, yet it appears to him that the very nature of the anatomico-pathologic conditions present would seem to effectually preclude the possibility of successful treatment in many of these cases. That cases without too much destruction of the femoral head and neck will be improved by the approximation of the bone to the acetabulum, or placing it anterior and maintaining the parts in this position for a long time, as in congenital misplacement, seems not unreasonable, and, in view of the fact that nothing better is offered, should be tried.

That cases of epiphysitis occurring in young infants where the head and neck of the bone are largely cartilaginous and in a condition favorable to be destroyed completely, will leave a condition unfavorable to successful treatment, except as recommended by Townsend, i. e., as excised hips, by an extension sole to lessen the limp, and the inevitable scoliosis resulting from a tilted pelvis, would appear to be about all that can be done in some of these unfortunate cases.

Discussion such as is hoped to be elicited will favor a better understanding, perhaps, and tend to crystallize ideas relating to what now seems to be little understood generally and rarely practiced, save in the practice of a very few orthopedists.

DISCUSSION.

Dr. John Ridlon, Chicago—Some weeks ago Dr. Lord asked me for facts concerning this condition, and I told him that I had no recollection of any case, and, so far as I could ascertain, I had no record of any case that appeared to resemble congenital dislocation of the hip. By one of those curious circumstances two such cases have since come to me; one of them I have operated on and the other is waiting to see the results of the first operation. Both of the cases were in children and were of sudden onset, accompanied with great pain. Neither had had any abscess that was ever recognized or opened, and there were no scars. I was inclined to believe that it was a pneumococcus infection, and I was somewhat surprised at Dr. Lord's statement that his case was one of pneumococcus infection, and that there was an abscess, because I was under the impression that one did not get abscess in the pneumococcus infection. Now in these two cases the edge of the acetabulum was ragged and the greater trochanter was one-half inch or more above the upper border of the acetabulum, and the line of junction to the shaft where the neck had been was ragged. In the first case, a colored child, I found what I thought possibly was the shell of the former head of the bone, it being somewhat of that size and shape. Under an anesthetic I ventured to pull the leg down, so that the greater trochanter would be in the neighborhood of the acetabulum, and force it into the acetabulum, thinking that I might renew the inflammatory condition, and more likely cause the formation of adhesions which might result in permanent fixation. As I did the operation I could hear a crash, as though some partly diseased portion of the bone was being crushed. I could not make out whether it was the acetabulum or the greater trochanter. The patient has not recovered fully from the operation, but there is no pain, sensitiveness or temperature, and the patient appears to be perfectly comfortable.

The other case resembled the first exactly, excepting that the shell of the head was wanting, and there was a transparent area below the greater trochanter, as if the bone had been partly destroyed. I suggested in the second case the same operation as in the first. It seems to me that the only chance of securing satisfactory results is in pulling the greater trochanter down and placing it in contact with the acetabulum, holding it in place by mechanical appliances for many months and then, if necessary, putting on a leather support to hold it in place for many years. I do not think one should fear the inciting of undue inflammation, as it would seem by this inflammation we would get a greater degree of fixation and better results.

Dr. Wisner R. Townsend, New York—This paper, it seems to me, is particularly opportune, for the reason that the country is being scoured for patients with supposed dislocation that some surgeon may reduce a la Lorenz. The first question to be considered is that of diagnosis. If the diagnosis is correctly made the subsequent treatment may be correct. If it is incorrect it is very uncertain what the treatment may do. One point that seems to me of especial importance after the diagnosis, is the future of the child. I have had the misfortune to be able to follow some of these cases for ten or fifteen years, and those which were neglected were far worse off than those which were cared for. To my mind the points of most importance are to keep the thigh abducted and prevent irritation. The cases should be kept under observation for many years. The thigh can be placed in a plaster-of-paris bandage or a leather support or splints, if desired, and much good result. As far as reducing the supposed dislocation by the Lorenz method is concerned, I do not believe that we can accomplish much except by putting the bone in an anterior position. I have never seen a case of congenital dislocation in which you could not feel the head of the bone; sometimes it is very distinct, although deformed. In acute epiphysitis the head is almost entirely absent, and if the history of the previous abscess is secured it is a rather easy diagnosis to make. Without the head of the bone, of course, we can never have as perfect motion as in the normal child, and no method of treatment can restore the head.

Dr. John P. Lord, Omaha—Just a word in regard to the pneumococcus. As I have said, this condition was only suspected because the child had pneumonia. It occurred after the child was convalescing and, of course, a mixed infection might have caused the suppuration and the discharge. The remark made by Dr. Ridlon that pneumococcus infections of the joints do not terminate in abscess would tend to confuse us, if we continued to depend on the presence of the scar for diagnosis. The writer felt somewhat backward about bringing before the Section a subject which was so rare and of so comparatively

little general interest, because I find that very few are informed outside of those working in special lines, and even these are undetermined. It is, therefore, very important, as Dr. Townsend suggests, that this matter be discussed at this time, in order that we may get our minds clear on this subject.

THE TREATMENT OF UNCINARIASIS.*

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WASHINGTON, D. C.

The treatment of uncinariasis may be considered under three headings: First, the prophylactic treatment, or that directed toward the prevention of infection by the hook-worm; second, the means used to cause the expulsion of the parasite; third, the treatment of the anemia and debility resulting from the infection.

Prophylaxis is of very great importance, and is a subject which requires careful consideration. It seems probable that infection takes place chiefly through the mouth, either in infected water or food, or through contaminated hands, which carry the parasite to the mouth. Looss, however, has apparently proven that the larvæ may penetrate the skin. A possible entrance through the air passages has also been suggested, but does not seem probable.

A most important fact, and one which greatly simplifies the treatment of uncinariasis, is that there is no increase in the number of parasites in the intestinal tract of the victim. Each hook-worm is taken into the system in the larval state, and then develops into a mature parasite capable of producing eggs which must, however, be passed from the host before they can be hatched. Thus it seems probable that the removal of a sufferer from an infected locality to one free from infection would ultimately result in recovery, if the vitality had not been already too much taxed.

MODE OF INFECTION.

The eggs are deposited in the fecal evacuations, and are, under favorable circumstances, hatched in twenty-four to forty-eight hours. In the larval state they become scattered in water or soil, and are now ready to infect the host who swallows them, or whose skin they penetrate.

Since the primary infecting agents are to be found in the evacuations, the important question seems to be how best to insure their destruction before they become scattered in the surface soil.

Sandwith says "cleanliness alone is required," but this is not enough. Of course, washing the hands before eating would prevent a certain number of infections, but if we remember the possibilities of infection through the drinking water and in the use of raw vegetables, to say nothing of the theory which Looss has proven, of infection through the skin, it can readily be seen that washing the entire body several times a day would not suffice.

The first step, the all-important step, is toward the destruction of the eggs and larvæ. It is well known that the embryos can not live without air. In view of this fact, Sandwith[1] suggested that infected villages should be compelled to dig trench latrines outside the villages, to use the latrines alone, and to cover them daily with earth. Thus the larvæ, deprived of necessary air, would soon die and cease to be dangerous, and as a result the disease would in time be stamped out.

Sandwith would also insure the death of the embryos by exposing the latrines to the sun's heat, as they have been known to live in shaded earth contaminated by feces for more than six months. Giles (quoted by Sandwith) recommends ploughing the infected surroundings of villages, so as to bury the embryos.

Stiles[2] has advocated practically the same thing as has Sandwith for the localities in our southern states where uncinariasis is known to exist. He suggests the use of suitable water-tight receptacles for feces, which should be emptied frequently; that the people should be taught the necessity of making use of these receptacles at all times, instead of defecating at any convenient spot, where the eggs hatch and the larvæ become disseminated through the surface earth.

This education of the people can only be accomplished by the family physician. No matter what care is taken or efforts made to enforce such regulations, the stamping out of this serious disease is going to be a difficult and tedious problem, simply because its occurrence is almost exclusively among the most ignorant of our people. The discharges might be burned or disinfected by chemical agents, but these methods are not practical in the country districts where uncinariasis prevails. To me the use of trench latrines would seem to be the most practical method of disposing of the infected feces, as it would necessitate very little trouble and no expense, items which would naturally appeal strongly to the people.

THE MEANS USED TO CAUSE THE EXPULSION OF THE PARASITE.

As an anthelmintic in uncinariasis thymol has almost entirely displaced all other remedies. (The credit of discovering the cure of ankylostomiasis by thymol seems to be due to Bozzolo, in 1880.—Sandwith.) The most popular method of its administration is as follows: The patient is given a purgative the day before, and is placed on liquid diet. Thymol is then given in 15 to 30 grain doses (1 to 2 grams) for four doses, at intervals of two hours. If the bowels do not move spontaneously in twelve hours after the last dose, a purgative is given. If an alcoholic solution of thymol is used, the majority of the worms are passed in six to eight hours after the first dose. Therefore, the stools passed within this time are the most important to examine for the parasite. If alcohol is not used they are seldom seen earlier than twelve hours after the first dose.

Sandwith has found that 4 grams (3i) given in two doses of 2 grams (30 grains) each at 8 and 10 a. m. respectively, are quite as efficient as the use of 6 or 8 grams given in three or four doses at intervals of two hours, and are less likely to cause the symptoms of collapse. He also omits the primary purge as unnecessary and conducive to exhaustion, and gives a dose of sulphate of magnesia or castor oil two hours after the second half of the thymol. It has been found best not to repeat the treatment more frequently than once a week unless there should be some specially urgent reason for a rapid expulsion of the parasites. This method and dosage, I think, will be found most satisfactory.

The fact that thymol is poisonous must not be lost sight of, and the patient should be carefully watched. Some authors have cautioned against the use of alcohol, ether, turpentine, chloroform, oil, glycerin and certain

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Practice of Medicine, and approved for publication by the Executive Committee: Drs. J. M. Anders, Frank A. Jones and W. S. Thayer.

1. Observations on 400 Cases of Ankylostomiasis, 1894.

2. Report on the Prevalence and Geographical Destruction of Hookworm Disease in the United States, 1903.

alkaline solutions during the administration of thymol because of its solubility in these media, thereby increasing the danger of rapid absorption and consequent poisoning. Other writers, however, advise the use of alcoholic stimulants, on the ground that the depressing effect of thymol is best combated by this remedy. No less an authority than Sandwith says: "Warned by the death of at least one of my patients immediately after digesting the thymol, I have always administered to feeble men 25 grams of brandy with each 2 grams of thymol, with the happiest results."

Stiles and Pfender in 1902 performed a number of experiments on dogs with thymol in various forms. From these experiments Stiles concludes by saying: "I am afraid of the use of alcoholics per os during treatment, and in the case of weak patients I should be more inclined to use a stimulant hypodermically than run the risk of dissolving the thymol too rapidly, or in too great quantity at one time."

Since thymol is the accepted anthelmintic in the treatment of uncinariasis, and as there seemed to be some difference of opinion as to the safety of its use in alcoholic solution, I instituted a short study of its action on dogs. I regret to say that time did not allow of as complete an investigation as I would have wished before the presentation of our conclusions before this Association. I hope, however, that a few facts of value have been determined.

The work has been carried on by E. E. Butterfield, a fourth-year medical student in the Columbian University and pathologic interne at Garfield Hospital, to whom I wish to express my thanks.

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EXPERIMENTAL WORK WITH THYMOL.

Thymol was administered in powder, in alcoholic solution, rendered bland by the solution of olive oil, and hypodermically. Space does not allow of a discussion of previous observations upon the physiologic action of thymol; it suffices to say that our results did not agree in all respects with those of other investigators.

Thymol given in dry powder in small doses (2 grams) caused salivation, and later slight diarrhea. No marked or constant effect upon the temperature, pulse or general condition. Large doses (5 to 20 grams) cause profuse salivation, later vomiting, anorexia, disinclination to move unless aroused, diarrhea and slight elevation of temperature (0.5 F. to 1.0 F.), the latter appearing six hours or longer after the dose and lasting from twenty-four to forty-eight hours. Prolonged feeding in ascending doses of 2, 3, 4, 5, 6, 7, 8, 9, 11, 14 and 20 grams during four weeks caused no loss of weight, the weight of the dog on which this experiment was tried having risen from 22 to 26 pounds during the course of treatment. Eleven grams of the dry thymol is, apparently, not a dangerous dose to dogs of 22 pounds or more, if given carefully and after a meal. Four dogs were used in these experiments without a death.

Thymol Given in Alcoholic Solution.—Alarming symptoms immediately following the administration of the alcoholic solution of thymol to dogs, seem to be almost always, if not invariably, due to aspiration of the irritating solution into the lungs. In seven dogs to which an alcoholic solution of from 2 to 10 grams was given an extensive consolidation of lung tissue was the only significant lesion.

If aspiration of the alcoholic solution of thymol occurs the symptoms are immediate. In a few seconds the dog staggers, seems unable to stand, and in a few minutes develops general convulsions with unconsciousness. The temperature falls 1 to 3 F., pulse and respiration become rapid, pupils are widely dilated, and respond sluggishly to light. Convulsions last from five to fifteen minutes after consciousness is regained, the temperature rises slowly, and in from six to twenty-four hours reaches a point 1 to 2 F. above the normal. This elevation persists for a number of days. A persistent cough develops, a fremitus may be felt over the lungs, and râles are heard. If recovery takes place the dog regains his appetite in one or two days, the cough gradually abates and the temperature falls to normal. This occurred in two out of seven cases. In some cases there is persistent cough, elevation of temperature, loss of appetite and emaciation which would probably end fatally if allowed to do so. Three out of seven presented these symptoms, but were killed on the third to the tenth day after dosage, extensive lung lesions being found at the autopsy. Of the remaining two, one died almost immediately, the bulk of the dose having entered the lungs, none being detected in the stomach (the stomach tube had accidentally entered the trachea). The other, though not very sick, was killed four hours later to ascertain the early changes in the gastrointestinal tract.

Of the seven dogs experimented on, two recovered, and at the end of three weeks were apparently well, save for a slight cough; three would probably have died; one died; the remaining dog would undoubtedly have recovered, as the lung lesions were not extreme.

In conclusion it may be said that doses of 2 grams or more in alcoholic solution are unsafe for dogs, owing to a tendency to aspiration pneumonia.

Thymol in Alcoholic Solution Rendered Bland by the Addition of Olive Oil.—To avoid the irritating effect of the alcoholic solution, the drug was dissolved in alcohol, and enough oil added to render the mixture non-irritating, as tested by taste. Four grams were then given successfully to dogs of 16 to 17 pounds, without depression or fall of temperature. Six grams were given to a 17-pound dog, with a resulting fall of 2 degrees of temperature four hours after the dose was given, and lasting for six days, with depression, anorexia, diarrhea with bloody stools, emaciation (8 pounds lost) and coldness of the surface and extremities.

The autopsy, performed six days after the dosage, showed extensive subacute gastrointestinal inflammation with only two pea-sized areas of congestion at the base of the left lung.

Conclusions: Doses of 2 to 4 grams of thymol in alcoholic solution rendered bland with oil are safe for dogs of 17 pounds or more.

Thymol Hypodermically.—One 16-pound dog was given an alcoholic solution hypodermically to determine whether any toxic symptoms would develop from this manner of administration.

Ten c. gm., 0.20 gm., 1.00 gm. and 1.00 gm. repeated were given at intervals of one or two days without any apparent effect, except inflammatory swelling at the site of injection. Autopsy was performed one week after the last dosage. No pathologic lesions were found, except congestion of the lungs, which may have been produced during the process of anesthetization, which, in this case, was attended with considerable difficulty.

Autopsies on Eight Dogs.—Microscopic examination of the viscera of eight of the dogs to which thymol had been administered showed no changes which were not attributable to the local irritative effect of the drug. The liver, spleen, kidneys and heart muscle were normal. The changes in the lungs varied from intra-alveolar hemorr-

hage to bronchopneumonia in cases where aspiration had occurred. The condition of the stomach and intestines varied from mild congestion to marked inflammation, most intense after the administration of the drug in alcohol and oil; least intense after the dry. The probable reason why the inflammation was not so marked after the administration of the simple alcoholic solution was that it was so irritating that much of it was drawn into the lungs by the violent coughing it caused. In no instance were albumin or casts found in the urine at autopsy.

CONCLUSIONS.

1. The alcoholic solution of thymol is dangerous to dogs, even in small doses, chiefly because of its tendency to produce inflammation of the lungs by aspiration.

2. The alcoholic solution, even when rendered bland by the addition of oil, is dangerous in doses of more than 4 grams to dogs of 16 or 17 pounds, because of its irritative effect upon the gastrointestinal mucous membrane.

3. In dry powder the drug may be given to dogs in large doses without serious results, no depression, no fall of temperature.

4. Gram doses given hypodermically cause only local inflammation.

5. There is probably no danger in giving 2 to 4 grams, followed by 1 to 2 tablespoonfuls of brandy, to an adult human being, if followed in a few hours by a purgative such as castor oil or magnesium sulphate.

6. It is probable that the alcoholic solution obtained in this way would be more efficacious against the parasites, as seems proven by their much earlier appearance in the stools after the use of the alcoholic solution.

THE NUMBER OF DOSES REQUIRED TO EFFECT A CURE.

As to the number of doses of thymol which are usually required to effect a cure, I can not do better than to again quote Sandwith, who says: "In 184 patients I was able to prove the absence of worms by giving at least two, and sometimes more, doses of thymol after the last appearance of the parasite in the stools. The average number of doses required proves to be 2.6. Forty-two men were cured after only one dose, fifty-eight after two, forty-two after three, twenty-five after four, nine after five, and four after six doses of thymol. Two cases required seven attacks, and two others eight."

In my own case, after giving thymol at least nine times in a period of nine weeks in two doses of 2 grams each, separated by two hours, and followed by a purgative, there were found at the autopsy twenty-nine worms in the small intestine. This serves as a warning that in some cases the parasites are extremely difficult to exterminate, and require a prolonged course of treatment. The stools should be examined weekly for eggs, and as long as they are present the thymol treatment should be continued.

As to the resulting anemia and debility, a general tonic treatment with iron and abundance of good food and fresh air are indicated.

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DISCUSSION

ON PAPERS OF DRS. STILES, SMITH AND CLAYTOR.*

DR. W. G. HARRISON, Talladega, Ala.—After hearing Dr. Osler speak on this subject in his wards I felt sure that I saw some cases that were affected with hook-worm disease. When I came home a physician called attention to some suspicious cases at the Deaf, Dumb and Blind School. Several cases were found at the time the state medical association met with us, when Dr. Stiles was our guest. He confirmed the diagnosis in one of the four cases. A microscopic study of the case was not made until the early part of the last week. It was my purpose to treat the case with thymol, but at the suggestion of Dr. Stiles we gave them one or two remedies before resorting to thymol. These children were all in the schools. The youngest was 7 and the oldest only 18 years old. All were extremely anemic. No blood counts were made. Hemoglobin in the lowest was 25 per cent., in the highest 43 per cent. We were careful to make an accurate temperature record. The temperature of each of these patients was not much elevated. In four it was over 100 F., in three between 99.7 and 100 F. In only one was I able to demonstrate the malarial organism, so they could not have been due to latent malaria. In all cases there was a heart murmur, in three a systolic, in four an aortic. In four out of seven cases there was a marked pulsation of the vessels of the neck. It is rather an interesting point that Dr. Stiles himself recognized the disease in whites, but said he was not sufficiently familiar with its characteristics in the negro to recognize it. It was stated that it was likely one of the pupils would be affected with the hook-worm, and many students were examined and hook-worm disease found. Subsequently, in one of the schools, being unable to pick out the likely subjects, I asked the superintendent if there were any who appeared to be especially lazy, or any pupils who would not play, who would not take exercise, or frolic, or run or jump. He answered: "Yes, I have two boys who are so lazy that I can not get them to do anything." I examined those two and found the eggs in both. Three out of the seven cases I examined were among the blind. I saw two cases among the mutes. The peculiarity about the eyes was noticed. I had heard Dr. Welsh speak of the "stare." As soon as we were inside I said: "Doctor, I guess you will find the stare." Subsequently we went through the carpet factory and found in three out of seven cases the stare.

The treatment of these seven cases was as follows: Two were given four grains of calomel every three hours for four doses, and after a couple of days Epsom salts were administered. Twenty-four hours later the worms could be found in the stools. Then, for each patient, for two days, thymol was given in 15-grain doses at intervals of three hours. On the following morning there were found in the stools from 40 to 50 worms. The above was the treatment given in two cases. The third case was given 10 grains of salol every four hours for four days. No worms were found in 24 hours. In two days 10 grains of thymol were administered, and this patient passed 28 worms during the next 24 hours. In case four calomel, grains four, and santonin, grain one, were given every three hours until four doses were given. No worm inside of 24 hours. The next day two doses of 15 grains of thymol were given, and then there were passed between 60 and 70 worms. Case five fasted two days by accident, and this patient passed two worms before any medicine was given. That patient was given 10 grains of salol and 4 grains of calomel and 1 grain of santonin every three hours until four doses were given. This patient then passed 10 or 12 worms. On the succeeding day this patient was given 3 grains of thymol every three hours until three doses were taken, and on the following morning there was found in the stool 27 worms. Case six was given 15 grains of thymol every three hours for two days, and this patient passed a large number of worms, over 250, and probably four times as many more. Case seven had an incomplete record. He passed many worms.

DR. E. D. BONDURANT, Mobile, Ala.—My attention was first directed to the subject under discussion by a fellow practitioner in Mobile, Dr. W. T. Henderson, who told me of three cases which he had seen, and which from the peculiar edema shown he believed to be uncinariasis. The feces from those cases were submitted to me for microscopic examination, and in all of them I found the ova of uncinaria. Since then I have succeeded in interesting a number of my students and other doctors in the study of the disease, and have had a large number of fecal specimens sent to me for diagnostic examination. In this way I have already diagnosed more than

* The paper of Dr. Stiles appeared in THE JOURNAL July 18. The paper of Dr. Smith has not been furnished for publication.

fifty cases of uncinariasis in Alabama, chiefly from the counties of Mobile, Monroe, Escambia, Covington and Crenshaw, the greatest prevalence seeming to be in the sandy pine hill country west of the city of Mobile. In south Alabama there can be no question that the disease is more common on the sandy land than in the black lands or on dry formations. Uncinariasis is surely a very common complaint in our part of the world. It is rather a significant fact that in every instance in which uncinariasis has been suspected and fecal matter submitted for microscopic examination, I have been able to demonstrate the presence of hook-worm ova.

Being a neurologic specialist I have not had very great opportunity of studying the symptomatology and treatment of this disease, but during the past four months I have had to deal with uncinariasis as a complication or possibly causative factor in sundry cases of nervous disease. These patients, six or seven in all, have shown the anemia, listlessness and general mental and bodily enfeeblement already dwelt on by the authors of the papers under consideration, and all of them have been treated with thymol. The usual dose has been 60 grains, given in six capsules within two hours' time, preceded by calomel and followed by a saline. The results have been favorable without exception, numbers of worms being expelled and subsequent rapid improvement shown in the general condition of the patient.

Attention should, however, be called to the possible dangers of these large doses of thymol. One of my former pupils wrote me that he gave an 8-year-old boy 60 grains and came near killing him, the child passing into a conditon of coma with spasmodic movements and seeming at the point of death for hours; he was cured of uncinariasis, however.

Regarding the number of worms present, I know of one case in which a patient passed 953, and another instance, reported to me by Dr. Parker of Crenshaw County, in which "over 1,700 worms were counted, and there were more beside."

I have made careful examination of the blood in four cases, and in each one found a great diminution in hemoglobin percentage, with comparatively slight reduction in the number of red blood cells.

Now that Dr. Stiles has overwhelmed us with evidence and shown us how anybody can diagnose uncinariasis, we should not forget that the disease was recognized by Dr. Allen J. Smith ten years ago, when no one knew much about it, and its frequency was unsuspected.

Dr. C. A. Moir, Mobile, Ala.—Unless one has had a case of uncinariasis one can not appreciate the great work accomplished by Smith and Stiles. We in Alabama can fully appreciate it, because they have been so plentiful there. For a long time we were unacquainted with the disease and were treating for this, that and the other thing, and especially for malarial anemia. In fact, the poor little devils have taken iron enough to build battleships, and without any effect on the anemia whatever. Only when our attention was drawn to the true nature of the trouble did we get any good results. The first case in Mobile was recognized by Dr. Henderson, and he made a diagnosis from the clinical symptoms only. The pulsations in the carotids, the intense anemia, the lowered amount of hemoglobin, the systolic murmur, etc., are all such striking symptoms. How the anemia is accounted for I am at a loss to say; I do not know whether it is due to the loss of blood, or whether it is produced by the toxemia, or possibly the secretions of the worms themselves. It is hard for me to believe from the amount of the anemia which is so intense as in chlorosis and the loss of hemoglobin, etc., that it is due to anything so far attempted in the way of an explanation. But I am sure that many cases of so-called "idiopathic anemia" will be found to be due to some parasitic disease.

Dr. G. W. McCaskey, Fort Wayne, Ind.—My experience is limited to but three cases seen in northern Indiana, occurring over one year ago. Two cases were in Syrians, and therefore imported, while the other was an American.

I wish to emphasize the importance of a routine examination of the feces, not only in hospital cases, as advocated by Dr. Stiles, but in private practice as well. For several years I have been in the habit of making this routine examination of feces in practically all cases. A number of writers think that it would not be necessary to do this; Ewald, Einhorn and others think it is not necessary. In 1895 I read a paper advocating this routine examination of the feces, and I have been keeping up such examinations ever since. It is not especially unpleasant; less so than sputum examination. My principal object in getting up to-day is to plead for this routine examination of the feces in all cases of obscure chronic nutritional diseases, in which, among many other things, important parasitic ova may be found at any time.

Dr. Claude A. Smith, Atlanta, Ga.—This disease is not especially confined to the sand belt; it is also found in the mountain regions. Through observations that have been carried on in Atlanta and adjacent territory, and especially by examination of students in the Atlanta College of Physicians and Surgeons and the Southern Dental College, I have traced the disease from the Carolinas to Texas.

Almost every country practitioner in the South sees every year any number of cases of anemia, and many of them of the profound type, which are often classed as malarial cachexia, and they have been treating these cases with quinin, iron, arsenic, etc., with only slight temporary improvement, and I have found many such to be cases of uncinariasis, and the treatment with thymol has given positive results, which were sometimes remarkable.

Since we have recognized in the South that this disease is so very common, the point which concerns us most at the present time is by what means does it reach the intestines. During my early observations I was inclined to the common belief that it is taken into the body in the drinking water, but later observations led me to the conclusion that the larvæ gain entrance through the skin of the feet, as first pointed out by Bently, producing the ordinary "ground-itch," which is so common in the South in the summer after a period of rainy weather. In fact, I have found that it is possible to locate cases of uncinariasis that you would not otherwise suspect by simply getting the history of the patient in regard to attacks of ground-itch, and I have found that every person who has had an attack of ground-itch within a period of seven or eight years has the uncinaria in his intestines.

My first experience with this disease was in December, 1901, when, on making a postmortem examination on a case which had died at the Grady Hospital in Atlanta, I found over 300 of the uncinaria in the small intestine, and on looking up the history of the patient I found that he was from Florida and had never been out of the South. As this case was evidently contracted in the South I naturally concluded that it must be endemic, and through the kindness of Dr. S. H. Green I obtained the stools of twenty convicts who work in the damp clay in one of the large brickyards near Atlanta, and of these twenty I found two cases of uncinariasis. These cases were reported by me at the session of the American Medical Association at Saratoga last year in the Section on Pathology and Physiology. Since that time I have found the disease to be so common as not to be practicable to keep a record of all cases.

The reason the full extent of the disease was not recognized sooner was because it is a disease of the country and not of the city, and it abounds under unsanitary conditions.

In regard to the systematic examination of the stools of all patients, as mentioned by Dr. Stiles, since the first case appeared at the Grady Hospital I have made a systematic examination of the stools of all patients, and during this time have found only three cases in the hospital. The rules of the hospital require that all applicants for admission must reside in the city, and this accounts for the small number. As I have mentioned before, you can locate the cases with a fair degree of accuracy by securing a history of the patient with reference to attacks of ground-itch within seven or eight years.

Dr. James B. Herrick, Chicago—I wish to call attention to the fact that although this is a disease of the tropics, we in the North should keep our eyes open for imported cases. This last year Dr. Capps of Chicago observed and reported

a case that came from Panama, and who reached Chicago after a prolonged stay in the hospital in New Orleans. In this case it is interesting to note the occurrence of 13 per cent. eosinophilia with very marked anemia, the large number of eosinophiles calling attention to the possible existence of an intestinal animal parasite.

DR. WM. BRITT BURNS, Memphis, Tenn.—I would like to refer to two cases which did not show uncinaria. The first case was an engineer who had been in a logging camp, sometimes having occasion to drive teams through lakes of mud. I had examined him a number of times for the malarial parasite, which I found, and thought he had a malarial cachexia. The man came to me in Memphis three months ago. He had fainted and I restored him in my office. He was then placed in the hospital. He had a very marked anemia. He did not remain long enough for me to make a complete blood count. The blood was found to contain the malarial parasite. He had no temperature at that time. The stools did not show uncinaria or other intestinal parasite. This patient had marked symptoms of sleepiness; he slept every time he sat down. He was an engineer at that time and when it was time for him to pull the cord attached to the whistle, on one occasion he raised his hand to pull the cord and went to sleep, and passed the station. He had some diarrhea alternating with constipation, and his bowels would gurgle, as he expressed it. He had some colic. The stools were white. I wished to get him for further examination, but could not.

The second case was a soldier from the Philippines who came to me with diarrhea, and he said that he had had it for some time, possibly a year. He had been in the hospital for six months. Coming on to the pathologic service six weeks ago I made several examinations of his stools. There were no malarial parasites found in the blood. The parasites that I found in the stools were of this character: (Blackboard demonstration.)

I would like to know more regarding the character of the stools in these cases of uncinariasis and of other parasitic diseases of the bowels. I would also like to know the condition of the spleen and liver, the skin and sclera, and also something of the pathology of the mucous lining of the gut, whether there is ulceration or much involvement.

DR. CHARLES WARDELL STILES, Washington, D. C.—With regard to ground-itch, I may say that this is exceedingly common in people affected with uncinariasis; but so far as I understand at present it is also found in people who have no hook-worm disease. I am informed by physicians of Georgia and Florida that practically every inhabitant of these states, except persons living in cities, have had ground-itch at one time or another. Undoubtedly uncinariasis infection may take place through the skin, as has been demonstrated experimentally by Looss of Cairo, Egypt. As to infection through the drinking water, I think this is possible, but the chances are that such method of infection is not so common as might be supposed, for the reason that the larvæ of hook-worms sink in water. Infection through cotton, as was suggested in connection with one case, I consider practically excluded on account of the dryness of the cotton.

Length of life of parasite: I have two cases where the parasites have lived six years, and one case six years and seven months, after the patients entered an orphan asylum.

Disinfection: I consider chemical disinfection of premises impractical. Yards may, however, be disinfected with fire, either by spraying burning oil or by scattering straw around and setting it on fire.

Number of parasites present: Dr. Harrison's case, which passed over 1,700 worms, is interesting, and so far as I know now holds the world's record. Ashford sent me about 1,400 worms from one case in Porto Rico.

Classification of the parasite: Dr. Smith has spoken of the validity of the American species. My studies on the anatomy of hook-worms have been interrupted, but it is now easy to foresee that the old genus *Uncinaria* will have to be subdivided. Worms like *Anchylostoma duodenale* and *A. caninum* form a distinct group characterized by the presence of recurred hooks in the mouth; these parasites should be classified in the genus *Anchylostoma*. The worms without buccal hooks, but provided with buccal lips, belong at present in the genus *Uncinaria*, but these forms may be divided into several subgenera, at least, which may eventually be given the rank of genera. The typical subgenus is *Uncinaria*, with *U. vulpis* as a type. Species with non-symmetrical bursa and with prominent buccal tooth, like *Uncinaria radiata* of cattle and *U. trigonocephala* of sheep, may be placed in Railliet's (1902) *Bunostomum*. *Monodontus* (Molin), 1861, should be based on *M. semicircularis*, and apparently presents, according to Molin, a symmetrical bursa with dorso-median ray of the usual type. *Uncinaria americana* seems to take a very isolated position, with its buccal capsule more or less similar to that of *Bunostomum*, but with a symmetrical bursa in which the dorso-median ray is of a very aberrant type. I believe we are justified in recognizing for this species a distinct subgenus (for which I would suggest the name *Neeator*—a murderer), which may eventually be raised to generic rank. *Uncinara lucasi* is still different in certain characters, notably of the anterior end, and will probably call for the erection of a new subgenus. *Agriostomum* and *Characostomum* (Railliet), 1902, will probably stand as distinct genera.

The anemia: I agree with the view that it is difficult to explain the severe anemia and the nervous symptoms by the mere extraction of blood. In all probability the cervical glands of the parasites produce a poison which could be readily absorbed by the wounded mucosa of the intestine.

Diagnosis: As to the unpleasantness of a fecal examination, I frankly admit that I would much rather examine the feces than the sputum of a tuberculous patient.

Topography: I do not recall ever having stated that hook-worm disease is confined to sandy soils. What I claim is, that it is pre-eminently a disease of sandy regions.

Color of stools: The color of hook-worm stools is frequently a peculiar reddish brown, a quite different shade from anything I recall in connection with feces I have examined in Washington. Still, this color is not constant even in very severe infections. Nor is the blotting-paper test constant; in fact, it should never be relied on to the exclusion of the microscopic examination, for the chance of error is too great. I suggest the test simply as a convenient confirmatory test in severe cases for physicians in the infected district who are unable to make the microscopic examination. Blood in the stools is by no means constant. It does, however, occur.

DR. ALLEN J. SMITH, Galveston, Texas—It should be kept in mind, in comparing the group of cases which I have presented with the types of cases which have been mentioned in this discussion, that these instances represented a mild form, presented but few symptoms and were found in the course of a routine examination of a large group of persons undertaken because in some one or more of these persons it was certain the parasite existed. In the first and second of these cases the presence of an eosinophilia, found when searching for the malarial hematozoön, suggested the investigation of the stools for the uncinaria known to be present somewhere in the general group of students; and naturally the success of the search in these two early cases led to the thought of the value of the symptom as at least of suggestive force. In those cases of which I have records of the differential leucocyte count the proportion of eosinophiles ranges from 6 to 23 per cent.

There can be little if any doubt of the fact that one mode of acquirement involves the penetration by the embryonic worms in dirty water or in the mud adhering to dirty objects through the skin and tissues to their ultimate place of abode in the alimentary canal; while it is quite probable, too, that in many cases the entrance to the intestine is direct from drinking unclean water or eating dirty vegetables moist with damp earth. I do not feel that Dr. Stiles' view of the improbability of their transference by cistern water has included conditions which commonly prevail in the frequent over-ground cisterns found in many southern localities. There is easy chance for entrance of the ova to such cisterns by their being blown with sand and dust to the house-tops, whence they may be washed

by succeeding rains into the cistern. Sinking to the bottom of such receptacle they usually find what seems to me to be a not unsuitable surrounding for their incubation, providing they have retained their vitality, in the layer of sand or mud, mixed as it often is with charcoal commonly introduced into cisterns with a view of purification of the water; and as the faucets of these cisterns are placed close to the bottom it seems possible that the embryonic worms may be drained with the water used for drinking purposes or otherwise.

I also wish to lay some stress on the relationship which I believe may exist between this parasite and malaria. In six of the eight cases which I have mentioned there is a history of malarial complication, temporarily influenced by quinin, but invariably recurring after longer or shorter intervals. In several of these cases the demonstration of the malarial organism was unquestionable, but invariably was made only after repeated search and with more or less difficulty. While these malarial outbreaks were temporarily restrained by the administration of quinin, during the period of prevalence of the hook-worm in the intestine the malarial recurrences persisted indefinitely, the use of the quinin producing no permanent effect. All this ceased after the parasites were removed from the intestine, subsequent administration of quinin being promptly and permanently followed by the disappearance of the malarial symptoms. It might be suggested that in an indirect way the intestinal parasites have an influence in bringing about a persistence of the malarial infection—probably by lowering the natural powers of the system of the host in reaction and antagonism to some small residuum of the malarial infection after partial destruction by quinin, so that subsequently that residuum more surely may increase to a degree capable of producing the recurrence noted in such cases. With the removal of the worms there would seem to return the natural resistive influence of the body, and this joined with the potency of the quinin leads to complete and permanent destruction of the malarial infection. Doubtless there are other explanations possible for what in my experience is a very real relation of the character mentioned; but the idea suggested does not seem improbable. In such cases of an apparently malarial infection, with few organisms ordinarily recognizable, and these often missed, and with an irregularly recurrent type persisting after the use of quinin (although the latter may have been temporarily beneficial), I would urge that investigation be made for a possible complication by uncinariasis. If the latter be recognized I am confident that the experience I have mentioned may be repeated, and that by first removing the intestinal parasites it will be found that a difficult and persistent malaria will become readily amenable to the ordinary administration of quinin. It adds but little difficulty to the labor of diagnosis. The hook-worm egg is one of the most easily detected of microscopic objects in the fecal material; there is no complicated technic required in the examination of the material, and probably five minutes' attention as an average will suffice for the added work.

The relation between hook-worm diseases in man and in the dog is an item in which I am satisfied that I have publicly expressed mistaken ideas. In the discussion of this matter in 1901 before the Texas State Medical Association, I commented on the similarity of our human uncinaria and the dog hook-worm, and I expressed some question as to a possibility of identity as well as a possibility of the dog being an agent in scattering the parasites where man might acquire them. From the work of others as well as from the clear differences I have since learned to recognize between these parasites I fully realize the mistake into which my ignorance then led me.

I am satisfied, too, of another mistaken suggestion I made at the same time, namely, of the possibility of incubation of the eggs in the intestine of an original host, and thus a chance of permitting a slight infection to increase to a serious degree and to make itself permanent. While I am unable as yet to entirely set this idea aside as an occasional possibility, there is no doubt in my mind that it is essentially always untrue. That it is not impossible I would infer from the fact that occasionally the ova in very fresh feces are found to contain well-formed embryonic worms; and that rarely even in the ova within a gravid female worm an embryo may be found. Of course, too, the segmentation seen in the ova ordinarily is evidence of some procedure of incubation; and should the egg happen to be retained unduly in some groove or in a mass of mucus adherent to the mucous membrane of the intestine, it might on rare occasions develop into the freed embryonic worm. It is impossible for me to indicate why this does not ordinarily take place. I have noted in the incubation of ova in the fecal material that the process has proceeded more quickly and certainly at the ordinary room temperature than in the incubator at body-temperature; and although there are probably other factors than mere temperature at work in this connection, it may be one element in restraining incubation in the intestine.

Dr. Thomas A. Claytor, Washington, D. C.—Regarding the elevation of temperature in these cases, it has been claimed that fever is unusual. I think, however, that this depends on the degree of anemia. In intense anemia, no matter from what cause, moderate fever of an irregular type is frequently seen.

Several of the gentlemen have spoken of symptoms by which they could diagnose uncinariasis—such as paleness of the skin, hemic murmurs, pulsation of the vessels of the neck, etc., which mean nothing but anemia, and hence are only suggestive. Without examination of the stools I do not believe a positive diagnosis can be made. It is an easy matter today to have such examinations made.

Regarding the dose of thymol to be administered, it is from 30 to 60 grains (2 to 4 grams). Sandwith, who has had a very large experience in the use of this drug, gives 30 grains at 8 o'clock, 30 at 10 and after two hours a purgative. In weak individuals he gives an ounce of brandy for every 30 grains of thymol.

It has been said that the American hook-worm is more readily gotten rid of than the old-world variety, because of the absence of hooklets in the former. In a case which I have reported two months' treatment with thymol failed to entirely free the sufferer from the parasites, though they were of the American variety.

The weekly treatment with thymol should be continued until the eggs disappear from the evacuations.

The Danger of Corrosive Sublimate Solution as a Vaginal Douche.—It is strange that at the present time many medical men are found who continue to use corrosive solution for purposes of postpartum douching in spite of the clear demonstrations that have been made of its unsuitability and of its dangers, and in spite of the introduction of many safe and efficient substitutes. The use of this dangerous poison for postpartum douching is not alone confined to general practitioners, but it is used and recommended by many competent specialists. A case is recorded in an American contemporary in which a patient, aged 33, who had miscarried at the fourth month, was given a single vaginal douche consisting of a quart of 1 in 1,000 corrosive sublimate solution. The next day she exhibited all the characteristic symptoms of sublimate poisoning—gingivitis, salivation, and diarrhea, the symptoms became rapidly worse, and she died a fortnight later. Of course, an antiseptic can not be condemned because it is carelessly used with fatal consequences in a single case, and, if corrosive sublimate had anything to very strongly recommend it, it would be foolish to do so, but what are its recommendations? It destroys metal instruments; it is a most dangerous lotion to leave about a house; it is decomposed and rendered useless in the presence of much albumin; it roughens the hands of the operator, and constringes the mucous membrane of the vagina and vulva, and so tends to encourage the occurrence of lacerations of these parts; and, as the case to which we have called attention shows, and as many other reported cases show, its use is by no means free from danger. The obstetrician who uses it himself is courageous, but the obstetrician who recommends it for general use to others—nurses or students—is foolhardy.—*Medical Press.*

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SOLUBLE TOXIC SUBSTANCES IN AUTOLYTIC DISINTEGRATION PRODUCTS OF TYPHOID AND DYSENTERY BACILLI.

Up to the present time investigators have been able to isolate by filtration only toxins which go into solution in our liquid culture media. The best known examples of this are the diphtheria and the tetanus toxins. It has been to a degree disappointing that similar toxins could not be obtained from the typhoid, cholera and other organisms, as the possession of such toxins might make possible the preparation of antisera, to be used in the treatment of the diseases in question.

Recent work by Conradi, also by Neisser and Shiga, seems to indicate that some advance has been made in this direction. Conradi had previously observed that when certain organs (e. g., liver) undergo aseptic autolysis or self-digestion, through the agency of preformed intracellular ferments, substances were produced which hindered or prevented the clotting of blood *in vitro*. The same occurred in autolysis of yeast cells; and, furthermore, in both instances the end-product was bactericidal. These results led him and Drigalski to study the effects of autolysis of the dysentery bacillus cultivated from cases occurring among the German troops. The following method was used: An alkaline medium, consisting of 3 per cent. beef-water agar, to which 1 per cent. tropon was added, was solidified in large plates, and the surface inoculated with the bacillus. The plates were incubated for twenty hours at 37 C., the bacteria scraped off and put into tubes. A small amount of salt solution was then added and the tubes kept at 37.5 C. for twenty-four to forty-eight hours for autolysis to occur. The overlying slightly yellowish fluid was then drawn off after centrifugalization, five volumes of 0.85 per cent. salt solution added and then filtered through a Berkefeld candle. Subsequently, the filtrate was evaporated to one-tenth to one-fiftieth of the original volume. This constitutes a water-soluble toxin of which 0.1 c.c. kills a rabbit of two to three kilograms when injected intravenously. In the case of the dysentery toxin it is stated that at the autopsy the intestinal mucous membrane is congested and even ulcerated, showing a predilection of the toxin for this structure. A toxin of similar virulence was obtained from the typhoid bacillus by the same technic. It was found that prolonging the stage of autolysis to more than forty-eight hours gave a weaker toxin. The technic used by Neisser and Shiga was similar. They worked particularly with the typhoid bacillus. In addition to studying the toxicity of their product they directed their attention to its content of bacterial receptors. It developed that the filtrate had the power of binding agglutinin to a marked degree, and, furthermore, that by immunizing with it a serum was obtained which was highly agglutinating, and also bactericidal for the typhoid bacillus. A higher bactericidal power was obtained in this way than usually can be realized by immunization with the bacteria themselves. This proves satisfactorily that free receptors for agglutinin and the bactericidal antibody were present in the autolytic product.

The experiments of Neisser and Shiga, so far as reported, do not indicate that a true toxin was produced. The word toxin, as now applied to bacterial products, has a definite and exclusive meaning, referring to poisonous products of bacterial life, by immunization, with which a demonstrable antitoxin is formed. The antibody formed by immunization with the filtered autolytic product was a bacteriolytic one—an amboceptor, while antitoxin is a uniceptor. It does not appear from this work that a body corresponding in structure to other known bacterial toxins was found. Further study may show that such a toxin is present.

This work serves to emphasize the fact that bacterial life in the body may not be parallel with that in culture media. It is probable that bacterial disintegration goes on at a rapid rate, and continuously in the body in such diseases as typhoid and cholera, setting free large amounts of toxic substances, while under ordinary cultural conditions this takes place to a limited degree. In justice to the French, especially Metschnikoff and his followers, it may be stated that they have long claimed that strong, soluble toxic substances could be obtained from the cholera and to a less degree from the typhoid organism. There appears to be a distinct field for research in this direction.

IS HYDROPHOBIA A PROTOZOIC DISEASE?

The causative agent of hydrophobia has been sought for most thoroughly, but, so far, probably in vain. It was the fruitlessness of his search for the organism of hydrophobia that led Pasteur to suggest that it might be due to an organism too small to be seen, even with the highest and best microscopes. It is generally stated, however, that the cause of hydrophobia does not pass through ordinary bacteria-proof filters which permit the ultramicroscopic viruses of several other diseases of unknown etiology to go through. Whether the non-filterability of the virus of hydrophobia is due to the large size of the elements to form union with animal cells, or to other causes, can not now be stated.

In these days, when discoveries of protozoan organisms in diseases of unknown etiology are made with startling frequency; when, if everything claimed comes true, the causes of smallpox, of vaccinia, of yellow fever, and of dengue (to say nothing of cancer) have just been discovered, it is not at all surprising to read that a peculiar

"protozoan organism" has been found to occur constantly in the nervous system of hydrophobic animals, especially dogs and rabbits. This announcement is made by Negri,[1] an assistant to Golgi in the laboratory for general pathology and histology in the University of Pavia. The appearances on which Negri bases his claims are easily brought out by ordinary staining methods in material fixed according to current histologic procedures. Hence his results are easily controllable. The "parasites" occur in the protoplasm of the larger nerve cells: in Ammon's horn, the cerebellum, the cerebral cortex, etc. They are of varying size and form, the interior containing smaller bodies, sometimes to the number of twenty or thirty. Negri regards these latter appearances as the result of reproductive processes, and declares, without hesitation, that he is dealing with living, "organized" formations, the probable cause of hydrophobia. He finds these "organisms" in the central nervous system of rabic dogs and rabbits, no matter the exact mode of infection. In the rabbit the "organisms" are smaller than in the dog; they make their appearance in the cells about the thirteenth or fourteenth day after inoculation; that is, shortly before the manifestations of the earliest symptoms. He has found these bodies in one case of human rabies. The investigations, so far, seem to limit the occurrence of such bodies as he describes to hydrophobia.

Are the bodies described by Negri protozoa? This question can not be answered positively, but it is unquestionably possible for degenerative and other changes in cells to produce structures that morphologically resemble certain stages in the complicated development of protozoa. This being the case, which no one will deny, we must seek for other evidence of the protozoan nature of structures like those described here than is found in a more or less superficial resemblance to protozoa. But such evidence is not forthcoming. Anything like complete developmental cycles has not been described. It has not been shown that the bodies studied are really living, independent, multiplying organisms. They have not been cultivated artificially, and a vast amount of work remains to be done before any definite opinion is permissible. Let us hope that the general appeal now being made to protozoa to shoulder the responsibility for causing so many destructive diseases whose etiology, so far, has escaped search, may not prove altogether in vain.

RESPONSIBILITIES AND DUTIES OF HOSPITAL PHYSICIANS AND SURGEONS.

The increase of smaller hospitals, strikingly shown by the number and variety of official connections still occasionally attached to the name of a more or less prominent physician or surgeon, has been commented on frequently in these columns. The layman of intelligence is rapidly acquiring a taste for the environment and order pervading a hospital. Birth of these smaller institutions is by no means confined to the large metropolis; individual or corporate enterprise has foreseen their need in many obscure but thriving communities. For the care of the ill and injured in this manner, resident and attending staffs have multiplied, considered in the aggregate, to an extent realized by few persons. One pleasing consequence of this is that post-graduate hospital training is accessible to many more than heretofore.

No uniformity of procedure or government of the medical forces of this great class of minor institutions exists, scattered as they are among divers religious denominations, mines, railroads and large manufactories, or organized with capital invested for direct or indirect profit. The responsibility to the public for their conduct is at times assumed by a single member of the profession; sometimes it is undertaken by a wealthy industry, or it may rest with some sectarian or educational organization. No doubt the average attending physician and surgeon feels that the essential duty of his hospital connection is the immediate amelioration of human suffering; another duty of great importance, but as yet only insufficiently fulfilled, is the training of younger men.

The service of internes in some hospitals is too long, the number receiving such training thereby being limited. In many hospitals the service is not a graduated one; in others the training is narrowed to certain branches of medicine. In a large number the amount of labor and the few to perform it precludes anything except sordid drudgery. It is well known that the responsibility for evils of this kind in hospital management and the power to amend them rest with the medical board or attending staff, yet the absence of any coordinate effort to correct these is as noticeable in numerous conspicuous instances as is the failure of conjoint action in other matters awaiting organized action. Commensurate with this failure is the absence of anything like general effort to properly instruct their subordinates and to form little centers for the diffusion of knowledge.

The mechanical nature of the duties of internes in some hospitals might excite the suspicion that the surgeons or physicians do not desire to transmit to others the facility of diagnosis and skillful technic to which they owe some eminence. The need of completing a large number of operations in a given period or of seeing many patients hurriedly not only excludes opportunity for instruction, but is conducive to an irascibility of temperament, rendering the labor of others purely perfunctory. The young graduate is left to acquire or "absorb" what knowledge he may; certain methods of address and mannerisms of dealing with the laity, serving poorly for the subsequent attainment of a lucrative practice, may be acquired as well.

It is emphatically an error to suppose that the entire duty to the recent graduate is discharged by affording him opportunities of contact and association with leaders in medicine. The obligations of instruction and precept, of delicate hint and question, and, best of all, of

1. Zeitschr. f. Hyg. u. Infektionskr., 1903, xliv, 507-528.

example, are but poorly realized and inadequately met in many hospitals. The culpability of such defects is enhanced many times by the realization that conditions do not exist where medicine, in the broadest sense, can be taught as well as at the bedside and operating table. To such failures of attending-men as individuals are attributable the poorly constructed and incomplete records, and the entire absence in many hospitals of any progressive spirit of scientific inquiry in the "house staff." Clinical instruction in small classes is as acceptable to recent graduates as to undergraduates; its retroaction would be wholesome for many.

That some men have realized such opportunities is shown by the detailed examinations and careful clinical records; by the rapidity with which intelligence of their arrival is spread through the hospital; by the reverence for and retention of their teaching, and by the loyalty they enjoy from the constantly increasing number completing service under their enlightened supervision. It will be denied by no one that there is room for improvement in the directions indicated in the foregoing, improvement as applicable to the small as to the large institutions.

THE INFLUENCE OF THE DWELLING IN THE DEVELOPMENT OF TUBERCULOSIS.

While the rich are not immune, and do not escape its ravages, tuberculosis is, in a large measure, a disease of the poor, and this is so because with the rich there is generally intelligence and a knowledge of hygienic measures and the means to provide them, while with the poor the usual accompaniments are too often ignorance, indifference and neglect, together with all of the other disadvantages that attend poverty. This fact has been established statistically wherever it has been investigated, and the studies, particularly of Flick in Philadelphia and later of Biggs in New York, have shown conclusively that there are certain districts in large cities and certain houses in those districts in which tuberculosis occurs for many years with almost uninterrupted continuity. An interesting inquiry on similar lines has recently been conducted by Professor Romberg and Dr. Gaedicke for the city of Marburg, and the results are recorded in the *Deutsches Archiv für Klinische Medicin*, 76 B., 4 u. 5. H., p. 309. An analysis of the figure shows that while among the 18,000 inhabitants of the city 197 (1.1 per cent.) were victims of pulmonary tuberculosis, about four-fifths of the cases occurred in the poorest fifth of the population. The percentage of cases was 4.7 per cent. in the poorest fifth, as against 0.2 per cent. among the better class. The lesson to be learned from this fact is that measures for the eradication of the disease must be directed to the poorer class. It was further found that 34 per cent. of all of the cases occurred in 2.6 per cent. of the entire 1,503 dwellings in the city, while 59.2 per cent. of all of the cases among poor occurred in 33.6 per cent. of the houses occupied by them. No definite relation could be discovered to exist between the situation, mode of construction and number of occupants of the houses and the frequency of the disease. While filth alone was not responsible for the presence of the disease, the latter was not found in clean dwellings. Nothing could be established as to the individual predisposition of the occupants. The cases in children and a study of individual cases would seem to lead to the conclusion that in a large proportion the disease must be referred to infectious influences. It has been shown that a single inoculation with tuberculosis is often followed by no evidence of disease. Repeated inhalation of tubercle-bacilli, however, through association in a filthy dwelling with a person or with persons careless with respect to cough and expectoration, is a most important etiologic factor. For this reason pulmonary tuberculosis must be looked on as a house disease, especially among the poor, and accordingly the best results in prophylaxis are to be looked for as a result of measures directed to preventing the spread of the infection through this channel.

But it is not altogether architecture that is responsible for the greatly excessive incidence of the tuberculosis among the poor. There are other causes from which they suffer far more than do those who are above them in worldly means. Among these are alcoholism, ignorance of hygiene, as already intimated, as well as their inability to mend matters in their defective dwellings with their proletarian tendencies, even if they had the knowledge and the will.

We talk much about the housing of the poor, but it is a fact also that the housing of the moderately well to do needs a consideration that it does not adequately receive. Many of the moderately high-priced flat buildings in our crowded centers of population are structurally, so far as fresh air and light are concerned, positive temptations to disease. That they are not more fatal is due in part to the fact that children are to a large extent excluded in their tenantry, and they are, therefore, less crowded. In either way, however, they are direct factors in the present problem of race suicide.

CLASSICAL APHASIA.

One of the Emerson anecdotes that came out during the recent celebration of the hundredth anniversary of the Concord philosopher's birthday, seems to deserve a place in the memory of American medical men, because it is such a striking illustration of aphasia. Emerson, who had been the greatest master of words in his generation, lost the power of speech as the result of a brain lesion, though he retained much of his power to think with the vigor and distinction of earlier days. A contributor to the June *Atlantic* illustrates his aphasic condition by retelling the story Emerson told of a carriage ride during which it rained. "After a while the—the—the—the—How do you call what stores up water till it is suddenly—suddenly—what shall I say? Not squeezed out?" "A sponge?" his hearer suggested. "No, no," with the sweetest of smiles and a sweeping motion of the hand up to the sky. "The clouds, perhaps?" was the next suggestion. "Yes, the clouds began to roll up

and threaten rain. I had forgotten to take with me my—my—my—By the way, what is it that people always borrow and never return?" "Umbrella?" was suggested. "Yes, umbrella," and so on with other lacunæ in the conversation. The contributor notes: "While, as everybody recognizes, the inmost philosophical essence of the umbrella was thus intellectually grasped, the mere empirical designation of its silk, stick and whalebone would not turn up." The story illustrates very well the merely mechanical hindrance that aphasia is to the expression of thought, though in severe forms it may apparently deprive even a vigorously thinking mind of much of its capacity for properly expressing itself. It is this very feature which constitutes the essence of aphasia. Yet this is often supposed to indicate, even by the medical man, that there must be some impairment of the mental processes behind, not seldom to the perversion of justice in the making of wills and the regulation of business affairs.

IS MEDICINE ATTRACTIVE TO SCHOLARLY MEN?

Professor Thorndyke,[1] of Columbia University, New York, has traced the careers of 5,283 college graduates (1840-1900) who were elected to the Phi Beta Kappa, membership in which is a recognized mark of scholarship. The object in doing this was to learn whether any given profession is gaining or losing in attractiveness to the type of men represented by membership in this fraternity. In the first place Professor Thorndyke finds that there is a remarkable uniformity in the percentage of Phi Beta Kappa men entering the leading professions, namely, from 64 to 68 per cent. for 1840-1900. But the percentages entering the various professions have been far from constant; thus the number taking up law was nearly twice as large in 1890-1894 as in 1840-1860. There has been considerable variation, too, in the number that have taken up teaching as a profession. The Phi Beta Kappa man was "three times as likely to become a clergyman in the middle of the century as he is to-day." The ministry has lost steadily in its attractiveness to this kind of man, and this loss has been quite uniform throughout the country. It is interesting to note that Professor Thorndyke's statistics show that medicine has not been a popular profession with what he calls scholarly graduates. From 1840-1885 the percentage ran from 8 to 4; from 1885 to 1894 7.5 and 7 per cent. entered medicine. He suggests that the gain after 1885 is due to the advance of medicine to the dignity of a science, and to the introduction into the colleges of elective courses in science. Professor Thorndyke's forecast of the future is as follows: "The future will probably witness a steady gain in medicine, a slight gain in teaching, a rapid but unstable gain in law, and a continued decline in the ministry." At the present time law and teaching get the lion's share of the scholarship of the country, as represented by the careers chosen by the members of Phi Beta Kappa. We believe that the indications point to a steady increase in the number of scholarly men choosing medicine for the field of their life-work. The opportunities for research, specialization and beneficent activities certainly can not but draw to medicine increasing numbers of high-minded college students. The inherent attractiveness of medicine because of the altruistic nature of its functions will be reinforced markedly henceforth by the rapidly growing opportunities to study medicine under propitious conditions, and by the favorable attention it is now receiving at the hands of our best universities on the one side, and of our wealthy philanthropists on the other.

1. Century Magazine, May, 1903.

FURTHER OBSERVATIONS IN REGARD TO RADIUM.

The possibilities of such mysterious forces as those possessed by radium present an attractive field of speculation for the physician. May not the radiant energy emitted by radium possess pathogenic as well as curative, destructive as well as stimulating, powers on cells and cellular processes? Perchance, it may be forces of this kind that upset physiologic laws of cellular activity, and lead to abnormal proliferations of various kinds? But questions of this kind are not yet ripe for discussion. Actual experimental studies must furnish the necessary basis of facts from which it may be permitted to draw further deductions. Danysz[1] found that radium destroys the skin of guinea-pigs and rabbits, but subcutaneous and muscular tissue do not seem so sensitive as skin. The nervous tissue is also sensitive to its action. A sealed glass tube with salts of radium placed against the skin over the spine is followed by death in young animals. In older animals the osseous tissue seems to protect the spinal cord against the radiations. The effects of rays of radium on bacteria have not been studied extensively as yet, but both Danysz and Bohn show that various larvæ and embryos are profoundly modified in their growth, many being killed when subjected to the radiations; others developing into monstrosities because of unequal stimulation. Bohn further finds that radium exercises an especially intense action on tissues or cells in proliferation; non-fertilized eggs may undergo more or less parthenogenetic development and give rise to atypical formations. It has been found, too, that in animals whose skin was burned by the rays, the hair, in some cases, appeared to be forced into rapid growth. It seems that various effects are obtainable, depending on the tissue or cell exposed, as well as on the quantity and quality of the rays. Further experiments, no doubt, will yield even more interesting and conclusive results. We have commented on the announcement that in Vienna cancer has been cured by means of radium. In this particular direction much work will surely be done, and we may expect interesting developments.

THE VALUE OF EXPERIMENTAL STUDY OF TRANSPLANTABLE TUMORS.

The study of malignant tumors by the usual methods hitherto in vogue has not yielded many results of fundamental importance. A serious drawback to this study is encountered in the non-inoculability of human tumors in animals. The occurrence in certain animals of transplantable tumors furnishes the investigator with welcome opportunities to institute various lines of experimentation looking, for instance, to the production of immunizing and curative substances. Thus Jensen[2] of

1. Compt. rend. de l'Acad. des Sciences, 1903, cxxxvi, 461-4.
2. Centralbl. f. Bact., 1903, xxxiv, 28-34, 122-143.

Copenhagen was able to work with an inoculable, spontaneous tumor in a white mouse. He has carried the experimental inoculation through nineteen generations, and other experiments have been made with a view to producing active as well as passive immunity—at the same time as the tumor cells have been subjected to various procedures calculated to throw some light on their properties. This tumor occurred originally subcutaneously, and was in structure a carcinoma, which character it subsequently maintained. Subcutaneous injections of material rubbed up and suspended in salt solution were followed, as a rule, in fourteen days or so by the development of a small nodule at the site of injection, which slowly increases in size up to 15 to 20 grams. Metastases seem not to have occurred. During two and a half years successful transplantation has been made, as stated, through nineteen generations, about 50 per cent. of the animals used proved susceptible. As in the experiments of Leo Loeb, Herzog, Moran, it here also concerns a genuine transplantation, and not a true infection, because Jensen, who studied this point with the greatest care, found that simple crushing of the tumor cells before injection gave always negative results. Living cells must be transferred in order to secure success. These and the other experiments with transplantable tumors lend no direct support whatsoever to the parasite theory of tumors. In reality, successful transplantations in the same species are, so to speak, equivalent to the development of metastases in the individual. Jensen found that the tissue of the tumor he followed through so many animals remained alive for about eighteen days at a temperature of 1 to 3 C., at room temperature for about twelve days, but at bodily temperature only for twenty-four hours. The cells were killed by heating for five minutes to 47 C. and by exposure to —20 C. for twenty minutes. The tumor tissue was also killed readily by intense light, but the rays have the power to penetrate only for a small distance into the depths of the tissue. Here are examples of the procedures to which transplantable tumors may be subjected, with the view of laying bare some of the secrets of the tumor-producing forces: Carcinoma in mice appears to offer good starting points for valuable studies of this kind, and it is very desirable that examples of tumors in this and other animals be placed at the disposal of competent pathologic laboratories. Physicians who may come to know of tumors in mice, dogs, cats, etc., will render science a service by securing such animals for experimentation under the most favorable conditions.

Medical News.

CALIFORNIA.

Aged Physician Injured.—Dr. Malek A. Southworth, San Jose, while driving across a railway track at Wayne, was struck by a train and sustained severe scalp wounds and contusions, and the fracture of two ribs.

Dr. Landis Released.—The Supreme Court has decided that Dr. Amos J. Landis, Chico, convicted of forgery and sentenced to serve seven years in prison, was indicted by a biased and prejudiced grand jury, and given a partial trial; and, therefore, that the judgment of the lower court is reversed.

Bogus Inspector Convicted.—H. G. Myers, Stanford, who traveled around the country representing that he was commissioned by the State Board of Health to examine women, was sentenced to imprisonment in the county jail for ninety days and to pay a fine of $200, the limit allowed by law.

Personal.—Dr. Charles F. Taggart, Los Angeles, chief surgeon of the San Pedro, Los Angeles and Salt Lake Railroad, has gone to Salt Lake City to arrange a hospital service for the road. ——Dr. Albert C. Rogers, Los Angeles, has returned from Europe.——Dr. Charles B. Brigham, San Francisco, had a paralytic stroke, July 10, and is lying seriously ill at his country place near Lake Tahoe.——Dr. Norman H. Morrison, San Francisco, sailed, July 16, for a tour of the Hawaiian Islands.——Dr. Thomas M. Hayden has succeeded Dr. George H. Aiken as president of the Fresno Board of Health.——Dr. John H. Meyer, San Bernardino, has begun his official work as county physician and superintendent of the county hospital, vice Dr. Samuel G. Huff.——Dr. and Mrs. Hoell Tyler, Redlands, have gone to Europe.

COLORADO.

Personal.—Dr. Anders J. O. Lof, Aspen, returned, July 17, from Vienna.

Illegal Practitioner Flees.—"Dr." M. E. McGrath, who was arrested at Denver, charged with practicing medicine without a license, has fled from the city, forfeiting his bond of fifty dollars.

Denver's Deaths.—In May 198 deaths were reported in the city and county of Denver, equivalent to an annual death rate of 13.57 per 1,000. Of these 62 were due to tuberculosis; 18 to pneumonia, and 11 to valvular heart disease.

Hospital Changes Name.—Following the consolidation of the city and county governments, the name of the Arapahoe County Hospital has been changed to the Denver City and County Hospital. The management of the hospital is now under Health Commissioner Dr. Augustus A. Clough.

Hospital Incorporated.—Drs. Samuel T. Quick, Albert W. Killgore and E. Stuver have incorporated the Fort Collins Hospital Association, with a capital stock of $50,000. Nearly all the physicians of the city are identified with the enterprise as stockholders, and as all physicians are guaranteed complete professional control of all cases they may send to the hospital, the undertaking is looked on with great favor, both by the profession and citizens generally.

ILLINOIS.

Maternity and Orphan Asylum.—Contracts have been let for a two-story building for the St. Vincent Maternity and Infant Asylum, at Park Ridge, to cost $20,000.

National Guard Appointment.—Dr. Arthur F. Wilhelmy, Decatur, has been appointed assistant surgeon in the Illinois National Guard, with the rank of first lieutenant, and assigned to the Fifth Infantry.

Healers Jailed.—Two alleged magnetic healers, who fleeced many citizens of Peoria and then levanted, have been captured in Omaha, and will be returned to Peoria, where they will be prosecuted on a charge of obtaining money under false pretences.

No Typhoid in Illinois River Water.—The commissioners appointed to investigate the condition of the Illinois River in the case of the State of Missouri against the State of Illinois, for alleged pollution of the Mississippi River, have been unable to find a single typhoid germ in the Illinois River.

Births and Deaths.—Circulars have been mailed by Secretary James A. Egan of the State Board of Health, to the physicians of Illinois, calling their attention to the new certificates of deaths and births, which they are required by law to fill out and return to the county clerk, and in Chicago and Peoria, to the Commissioner of Health, in the cases of births, and in the cases of deaths to the State Board of Health, except in cities where burial permits are issued. He accompanied the circular with sample certificates and with a circular issued by the United States census office on "The Relation of Physicians to Mortality Statistics." The new law is being very generally complied with.

Chicago.

Licenses for Infant Nurseries.—Two licenses and permits to conduct infant nurseries have thus far been issued by the city clerk.

Bequests.—By the will of the late Horace P. Taylor, $9,400 each is bequested to St. Luke's Hospital and the Chicago Baptist Hospital, to be used for endowing free beds.

Physicians in Collisions.—During the past three weeks Drs. Arthur R. Edwards, Frank W. McNamara, Louis A. Greensfelder

and Jacob Frank have suffered physically or financially by the collision of carriages in which they were riding, with other vehicles.

Fights Fine.—Dr. Frederick L. Orsinger has secured an injunction restraining the State Board of Health, Justice Chott, and his constable from causing his imprisonment or enforcing a judgment for $100 and costs secured against him for alleged violation of the medical laws.

Summerers.—Dr. E. Fletcher Ingals has gone to Connecticut, where he expects to spend the next two months rusticating, and incidentally learning to play golf.——Dr. Frank Billings is at his cottage at Mackinac.——Dr. Henry Hooper is spending his vacation at the Huron Mountain Club, Lake Superior.

Low Death-Rate.—A phenomenally small proportion of deaths among the aged is mentioned by the Department of Health, as one of the noteworthy features of a remarkably low July death rate for the week ended July 25. There were only 55 deaths among those over sixty years of age reported out of the total 513 at all ages, while the rate for the total—14.19 per thousand—is the lowest ever recorded for any July week in Chicago. For the 25 days of the month the rate is 14.69 per thousand as against an average July rate for the previous ten years of 17.64 per thousand. This decrease of more than 16 per cent. is to be attributed chiefly to the low and equable temperature of the month.

INDIANA.

Proposed Medical College Merger.—There is a movement in progress to form a union of the faculties of the Medical College of Indiana and the Central College of Physicians and Surgeons with a possibility of its consummation. There would then be but one medical college in Indianapolis, and it may become a medical department of the Indiana University, which is located at Bloomington. With a view to consolidation, a committee from each institution has been appointed to outline an agreement satisfactory to each interest.

Deaths in June.—There were reported 2,265 deaths, an annual rate of 10.9 per 1,000; 306 were under 1; 147 were 1 to 5; 60 were 5 to 10; 45 were 10 to 15, and 589, or 27.9 per cent. of the total were 65 and over. The consumption deaths numbered 306, the city rate being 1.7 per 100, and the county rate 1.3. Deaths from certain important causes were: Pneumonia, 124; diarrheal diseases, 75; cancer, 96; typhoid fever, 42; diphtheria, 15; scarlet fever, 7; whooping cough, 24; puerperal fever, 8; violence, 133, and smallpox, 4.

Diseases in June.—The monthly bulletin of the State Board of Health, shows that rheumatism was the most prevalent disease and that tonsillitis and bronchitis were respectively second and third in prevalence. Typhoid fever was fourth, having stepped up from seventh place in the preceding month. Smallpox was sixth, having fallen from third place. Diarrhea, as was to be expected, increased in June over May, yet dysentery and inflammation of the bowels show no increase. Diphtheria, pneumonia and influenza were very much less in June than in May.

Personal.—Dr. John G. Wishard and family, Indianapolis, start early this month for Persia, where Dr. Wishard returns as medical director of the American Presbyterian Hospital, Teheran.——Dr. Charles E. Laughlin, Orleans, has been appointed superintendent of the Southern Indiana Hospital for the Insane, Evansville.——Dr. Charles M. Eisenbeiss, Elkhart, recently appointed a member of the State Board of Health, has resigned as coroner of Elkhart County, and Dr. Fred N. Dewey, Elkhart, has been chosen in his stead.——Dr. Jehu Z. Powell, Logansport, has been appointed physician at the National Soldiers' Home, Johnson City, Tenn.

IOWA.

Drake's Cornerstone Laid.—The cornerstone of the new medical building for Drake University, Des Moines, was laid, July 10. General Francis M. Drake delivered the address.

Explosion in Physician's Office.—Dr. W. P. Hombach, Council Bluffs, suffered severe contusions, and Mrs. Hombach a compound fracture of the leg in an explosion of illuminating gas which had accumulated under the new office building of Dr. Hombach. The building was completely wrecked.

New and Enlarged Hospitals.—Burlington Hospital is to have an addition and a nurses' home erected, to cost $35,000.——St. Thomas' Hospital, Marshalltown is now almost ready to receive patients. The formal dedicatory exercises will be held later.——Charles H. Keck has given to Washington, to be used for a hospital, the residence of his deceased father. The property is valued at $10,000.

Personal.—Dr. Albertus J. Burge, Iowa City, has been appointed assistant to the chair of surgery in the University of Iowa.——Drs. Alphonse L. Hageboeck and Edward F. Strohbehn, Davenport, have returned from Europe.——Dr. Donald McCrae, Jr., Council Bluffs, has been appointed surgeon-major in the Iowa National Guard, and assigned to the Fifty-sixth Infantry, vice Dr. Gilbert L. Pray, Lake City, resigned.——Dr. Albert S. Rider, Donnellson, has been elected professor of pathology and bacteriology in the Keokuk Medical College, College of Physicians and Surgeons.

KANSAS.

Fire at Sanitarium.—Four lives were lost at a fire which destroyed Bonner Springs Sanitarium on July 16. The financial loss is estimated at $20,000.

Medical Department for National Guard.—A medical department has been organized in the National Guard under the command of Surgeon-General Dr. Henry O'Donnell, Ellsworth.

Superintendent Assaulted.—Superintendent Thomas C. Biddle, M.D., of the Topeka State Hospital was assaulted by two attendants, who were afterward dishonorably discharged from the institution.

Meffert Appeals.—Dr. William M. Meffert, Emporia, whose license was revoked June 12 on account of gross immorality, has taken an appeal to the United States Supreme Court, and meanwhile continues to practice.

License Revoked.—The State Board of Medical Registration and Examination revoked the license of Dr. Robert E. Gray, Garden City, on the ground of immorality and unprofessional conduct in the case of Irma Brown, of whose murder Gray was acquitted in Chicago in 1902. Gray says that he will appeal to the Supreme Court.

KENTUCKY.

Dr. Bodine Out of Danger.—Dr. James M. Bodine, Louisville, on whom an operation was performed July 1, is now reported to be securely convalescent.

Commencements.—The medical department of Kentucky University conferred degrees on a class of 57, July 3.——Kentucky School of Medicine graduated a class of 56, July 8. The doctorate address was delivered by Dr. William H. Wathen.

Personal.—Notre Dame University, at its recent commencement, conferred the degree of LL.D. on Dr. Martin F. Coomes, Louisville, editor of the *American Practitioner and News*.——Dr. Cleon C. Owens, Frankfort, was painfully injured by a fall while climbing cliffs on the Kentucky River.——Dr. William S. Yazell has been elected health officer of Maysville.——Dr. John C. Cassidy, Eminence, has been elected secretary, and Dr. Pink H. Crutchfield, Bethlehem, president, of the Henry County Board of Health.——Dr. Rolla H. Alexander, assistant physician at the Eastern Kentucky Asylum for the Insane, Lexington, has resigned.

Requirements Must Be Enforced.—The requirements governing entrance to the different medical colleges of Kentucky are to be rigidly enforced, according to action taken at a meeting of the executive board of the State Board of Health in Louisville. The penalty of being refused recognition was provided, to compel all reputable institutions to adhere to the rules. This action resulted from a conference between the deans of the medical colleges and the members of the State Board of Health held May 22. It was alleged at that meeting that many medical schools in Kentucky have at various times admitted students in violation of published requirements and have offered them private inducements to take up the study of medicine. It is said that these allegations were confirmed.

MASSACHUSETTS.

Milford Hospital Dedicated.—Milford has a new hospital built through the generosity of Hon. Eben S. Draper, the manufacturer of Hopedale, at a cost of more than $60,000, which was dedicated by appropriate exercises, July 24, in the presence of more than 15,000 people.

State Mortality.—For the week ended July 11 40 cities and larger towns of Massachusetts reported a mortality of 675. Of these 254 were of children under 5 years; 187 were from infectious diseases; 51 from acute lung disease; 61 from phthisis; 5 from diphtheria; 7 from scarlet fever, and 95 from diarrheal diseases.

Floating Hospital Busy.—The Boston Floating Hospital is as busy as usual. The first ten days of its service showed 100

different patients cared for, 60 of whom were permanent patients. The number of ileocolitis cases has been much smaller than usual, while the number of marasmus cases has been larger than usual. Six or eight sick babies are refused each day on account of lack of accommodations.

Boston's Deaths.—The mortality record for the week ended June 25 shows a little gain, 188 deaths were reported, equivalent to an annual death rate of 16.25 per 1,000. Of these pneumonia caused 8; pertussis, 2; heart disease, 19; bronchitis, 2, and marasmus, 1. There were reported of diphtheria, 35 cases, with 4 deaths; of scarlet fever, 20 cases; of typhoid fever, 21 cases; of measles, 20 cases, with 2 deaths, and tuberculosis, 20 cases and 28 deaths.

NEW JERSEY.

Lacks Authorization.—It has been discovered that the bill appropriating $200,000 for a state tuberculosis sanitarium is not a law, because the act of authorization was overlooked, or purposely omitted.

Personal.—Dr. C. Radcliffe Johnson, Atlantic City, who recently accepted an appointment as medical missionary to the Philippines under the auspices of the Episcopal church, and is to be stationed at Manila, sailed from San Francisco June 11.

Isolation Hospital Burned.—The building erected in Orange as an isolation hospital for smallpox, in 1901, was burned July 2, with all its furniture and medical supplies. The loss is $2,000. It is believed to have been the work of an incendiary.

Examiners Elect.—At the annual meeting of the State Board of Medical Examiners, held in Long Branch, July 6, Dr. John W. Bennett, Long Branch, was elected president; Dr. E. L. B. Godfrey, Camden, secretary, and Dr. Armin Uebelacker, Morristown, treasurer.

OHIO.

Personal.—Dr. E. Marion Foster has returned after a year abroad and has located in Cincinnati.

Warning.—Dr. Walter H. Snyder, Toledo, warns physicians against R. N. Rumnis, an individual of medium height, reddish hair, slender, fair-skinned, freckled, who offers premiums for subscriptions to *Collier's Weekly*; collects for a year's subscription, giving discount; leaves the premium offered, which half an hour later he borrows or steals.

Uniform Course Favored.—The State Board of Medical Examination and Registration met with representatives of several of the medical colleges, July 8, to arrange for a uniform curriculum throughout the state. Those who addressed the board were Drs. B. L. Milliken, Western Reserve Medical College, Cleveland; G. J. Jones, Homeopathic Medical College, Cleveland; Park L. Myers, Toledo Medical College and C. E. Walton, Cincinnati Medical College. All were in favor of a standard course of study. Drs. Ravogli, Wilson, Baxter and Towers of the board were appointed a committee to confer with the faculties of the medical colleges and report at the meeting in October.

PENNSYLVANIA.

Typhoid Alarms.—For the week ended July 25, 112 new cases of typhoid fever were reported in Pittsburg. The health officials forecast an epidemic and unanimously attribute the disease to the impure water supply of the city.

Crozer Hospital Opened.—On the anniversary of the birth of the donor, July 17, the J. Lewis Crozer Hospital, Chester, was formally opened. The construction and equipment of the hospital, done in accordance with the will of the benefactor, were supervised by Mrs. Crozer.

Impure Molasses Prosecutions.—The State Dairy and Food Department have served warrants on 25 dealers in Philadelphia on the charge of selling as the pure article adulterated molasses, which the law required to be marked "compound." This fight, Commissioner Warren is quoted as saying, is made against the "molasses trust," which, he says, has kept up this illegal traffic in defiance of the law.

Philadelphia.

Tenth Tetanus Death.—The tenth victim of tetanus from the Fourth of July toy pistol died in the Philadelphia Hospital last week.

Personal.—Dr. Henry W. Stelwagon has been made an honorary member of the National Dermatological Society of France.

Anti-Spitting Ordinance Enforced.—Enforcement of the anti-spitting ordinance has begun in earnest. A considerable number of men and boys have been arrested for spitting on the sidewalks. Some have been fined $1 and costs, the penalty the ordinance provides for each offense; several have been held under bail for further hearing. One refused to pay his fine and was held under $300 bail to keep the peace.

High Infant Mortality.—The infant mortality for the week ended July 25 was high, cholera infantum being ascribed as the cause of 82 deaths. There were 15 new cases of smallpox, as against 24 for the previous week. Director of Health Martin is quoted as saying: "Smallpox in this city is bottled up at least, and we have it under control." Physicians of the Department of Health continue to vaccinate bodies of workingmen and factory employes, and hospitals are requested to vaccinate all dispensary and accident cases not so protected.

Water Conduit Completed.—The blasting and digging of the largest water conduit in the world has just been completed. This is a part of the filtration system of Philadelphia under construction, and is to carry the water from the Torresdale filter plant to Lardner's Point pumping station. The work was begun 18 months ago. Much of the tunneling was through solid rock 100 feet under ground. The conduit is 14,000 feet long, and will have a capacity of 300,000,000 gallons daily. The portion of the filtration system completed, the Roxborough plants now yield 27,000,000 gallons daily, and the output will soon be increased to 5,000,000 gallons.

Management Unsatisfactory.—Dr. Martin, director of the Department of Health, was not satisfied with the management of the Municipal Hospital when he assumed the duties of his office. He has made several visits of inspection, and as a result improvements are reported. In published interviews Dr. Martin is reported to have charged "gross negligence" to the management. There are said to be many "leaks" for contagion, the wages of employes are in arrears, the plumbing is unsanitary, and an efficient disinfecting plant is needed. Radical changes in the personnel of the hospital staff are said to be contemplated, and it is not improbable that Dr. William Welch, who has been physician in charge for twenty-five years, will be relieved by another physician under the title of chief resident physician. Dr. Welch may be made consulting physician to the institution. Dr. Jay F. Schamberg is now assistant to Dr. Welch.

Infant Prophylaxis.—The Bureau of Health has begun, through the city district physicians, a census of all babies of the city under one year. The canvass is for the purpose of improving the hygienic care, especially the feeding of infants. The inspectors, on cards provided for the purpose, are to take a brief history of each infant and note its environment. A circular, printed in different languages, giving rules for the care of infants, is to be given to each mother. The inspectors are directed also to give simple instructions to mothers, and to urge vaccination in cases of infants not already vaccinated. It is the plan of the department to give public talks to mothers on the preparation of food and the management of infants, by physicians, who will volunteer to do so. The babies' directory is to be the basis of a scheme to lower the infant morbidity and mortality, especially during the hot months. This work is to co-operate with that of the modified milk plant which is being installed, and which is to furnish infants' food at cost.

GENERAL.

Leper Colony in Good Condition.—The annual inspection of the leper settlement on Molokai was completed July 20. Everything was reported in a satisfactory condition. Ten persons were found free from the disease and were released. Confirmation of the diagnosis of leprosy was announced concerning a number who had protested that the diagnosis was erroneous.

FOREIGN.

The Swedish Medical Association has lately been reorganized on practically the same plan as the American Medical Association.

Hospital at Port Arthur.—The Russian government has appropriated over a quarter of a million dollars to construct a large hospital at this point, with a sanatorium for patients with lung troubles.

Projected Asylum for Orphans of Physicians and Druggists.—Dr. E. Buday, of Budapest, has organized a committee which is soliciting subscriptions and arousing interest in the foundation of an asylum and school for this purpose in Hungary.

American Mosquitoes Plague London.—It is alleged that the notable increase in the number of mosquitoes about London is due to the importation by ships of American and South African

varieties, which bred prolifically on the new soil. It is said that England already had twenty-two varieties of mosquitoes.

The Gera Contract Practice Trouble.—The latest phase is that the sickness insurance societies refuse to pay their whilom medical officers for the last quarter of the year for which they served, claiming that they should be made to pay for the expenses caused the society by their resignations. The physicians have appealed to the courts.

The Approaching Sanitary Conference at Paris.—Italy took the initiative in summoning the international sanitary conference which will meet at Paris, October 10. No program has as yet been announced, but it is understood that the aim is to propose modifications of international sanitary measures based on the results of the latest researches.

Accident Insurance in Berlin.—In the further working out of the industrial accident insurance in Germany, the edict has recently been passed that the family is entitled to an indemnity when the victim of an accident contracts a fatal infectious disease in the hospital to which he has been transported. The regulations assume that the danger of infection is greater in a hospital, and that the subject is less resistant on account of the traumatism, so that the latter is indirectly responsible for his death.

The Knoll Prize in Bohemia.—The Philipp Knoll prize of 2,000 crowns was awarded this year for the first time, and not strictly in accordance with the ideas of the founder. It should be attributed to some one of the younger German-Bohemian scientists for the best work done in the last three years. Instead of that, it was divided among Professor Bayer and Dr. J. Langer, for work on congenital hernia and the lymph glands and bee poison, both dating from several years ago, and A. Fischel and O. Bail for recent research.

Institute of Legal Medicine at Paris.—A decree dated June 22, provides for the establishment of an institute for legal medicine and psychiatry for the training of experts for forensic cases. It will be in charge of the dean of the medical faculty, and lectures and practical instruction are to be given by various professors and hospital physicians. The *Progrès Médical* comments that if the institute is to depend on the city morgue for its material and is not to be equipped with up-to-date laboratories and spacious dissecting rooms, it will fall lamentably short of the purpose for which it is intended.

Sequel to the Nardenkoetter Charlatan Case.—The charlatan Nardenkötter, who escaped to England and forfeited his large bail rather than face his sentence of three years' imprisonment and a heavy fine, we learn has been handed over to the Berlin police by the English authorities. THE JOURNAL related some of the particulars of the sensational case at the time. The family bath tub in which the charlatan compounded his medicines has been satirized in many ways since. The gullibility of the public has seldom been better evidenced, although an ad that has been appearing in a German paper from the Munich charlatan, Weselmann, seems to count on still greater credulity. The latter advertises that he can diagnose all diseases, past, present, and those still in the germ, by examining the eyes. One of our exchanges comments that this method of treatment is not so much of a mockery of the science of the twentieth century as it is an arraignment of the laws which permit such a method to be publicly exploited for gain.

Penalties for Charlatans' Advertising in Germany.—The editor of the advertising portion of the Breslau *General-Anzeiger* was warned by the authorities in regard to the fraudulent character of the ads of a certain charlatan named Malisius, who claimed to cure all diseases. He continued to print the ads and has recently been condemned by the Breslau courts to a fine of 3050 marks, about $765. The court stated that the editor in publishing the advertisement was more culpable than the charlatan, as if the papers did not aid the quack he would not become so well known. Malisius himself was condemned on 22 counts of accomplished and 9 of attempted fraud, to a fine of 1500 marks, or $375, and eighteen months' imprisonment. A woman at Eberfeld has also been fined $40 because she advertised that she treated gynecologic affections, kidney and bladder troubles, gout, etc., "according to the latest scientific methods and researches," but was compelled to confess that she had not the slightest knowledge of recent scientific research.

Contract Practice in Germany.—The *Deutsche Med. Wochft.* announces that the medical officers of the sickness insurance societies at Munich unanimously resigned their positions July 1, as anticipated, on account of the increased demand on them to be imposed by the new legislation previously mentioned in these columns, and the refusal of the societies to increase their remuneration to correspond. A committee had been appointed by the "county" medical society to obtain the moral support of the local profession for this step on the part of the "*Kassen*" physicians, and the committee reported June 18 that more than 99 per cent. of the physicians in the province had signed the circular. The editorial commends "the organization of the Munich physicians, their unanimity and energy, as a shining example for us all." Later reports from Munich state that whereas, before the resignation of the medical officers the *Kassen* would not listen to their appeals, since then they have already made overtures for a consideration of the matter, which the profession hails as a material victory, and hopes for a speedy, peaceful settlement of the question.

British Degeneracy.—The question which we mentioned as exciting the English press and people, whether or not the British race is deteriorating physically, is exciting as much discussion there as did the "race suicide" matter in the United States. By way of continuing the matter under discussion and broadening its scope to include the mental status, the lay press quote Dr. Ernest W. White, professor of psychologic medicine at King's College, as having said in his presidential address to the Medical Psychological Association that facts point to an accumulation of the chronic insane and that the number of cases of melancholia had vastly increased, frequently resulting in chronic insanity. During the last few years Dr. White had been struck by the large number of cases of evolutionary mental breakdowns occurring in patients of the upper and middle classes from eighteen to twenty years of age. This was the result of the strain of education and the worries of life on brains unequal to the stress under which Londoners lived. Late marriages were more frequent than they were fifty years ago, and that did not conduce to healthy stock. Late hours, unnatural excitements and the greater stress of life all had their effect on the increase of insanity, and he feared that the race generally was less robust mentally, as well as physically, than formerly.

Cancer Research.—The German committee for cancer research announces the foundation of a "*Zeitschrift für Krebsforschung*" to be published by G. Fischer at Jena in connection with the *Klinisches Jahrbuch*, although as a separate periodical. The editors are to be Professor v. Hansemann and G. Meyer of Berlin. At the meeting of the committee, February 28, it was announced that collective statistics are being gathered in Spain under the leadership of Hans Leyden, nephew of von Leyden of Berlin. Great interest is being manifested also in Russia where a model Institute for Cancer Research has been erected at Moscow as previously mentioned in these columns. The English committee recently sent a delegate to Germany to study the arrangements there. "Prophylaxis of Cancer of the Stomach" was the main subject discussed, the importance of careful chewing being emphasized by Katz. Ewald, on the other hand, stated that in his experience cancer subjects had always lived temperately and chewed slowly and well. The contradiction between the greater prevalence of cancer in the large cities and in the well-to-do classes in opposition to its lesser frequency among the poor and in the country, where the food is coarse and not carefully chewed, was also brought out by some speakers. It can scarcely be explained by stronger teeth among country people. Von Leyden also corroborated the increasing frequency of cancer of the stomach in the well-to-do classes. He reiterated his belief in the parasitic nature of cancer, remarking, "We live on hope and work for the future."

Fee-Splitting in the French Courts.—A certain family physician at Joigny charged $100 for his share in conducting a case which required an operation for which the surgeon's charges were $400. The affair was carried into the courts and the physician's right to remuneration in connection with the operation was conceded, but the court decided that he must not charge in proportion to the expense of the high-priced consulting surgeon, but must be content with $30 instead of $100, thus fixing a standard rate for the attending physician in such cases. The *Progrès Médical* comments that a fixed charge is incompatible with the sliding scale generally adopted by the profession in accordance with the patient's means, from zero upwards. It cites as a laudable attempt to solve the question the suggestion by certain medical syndicates that the family physician should receive one-fourth as much as the surgeon. If this rate were once accepted and incorporated in the medical relations with the public, the latter would know beforehand and could count on the expense of an operation

and the after-care, and there would be nothing to conceal nor any suspicion of indelicacy on the part of the medical corps. The editor of the *Gaz. Méd. Belge* commenting on the same affair, remarks that the family physician can not always count on the good will of the family in respect to his emoluments in such cases. He suggests as remuneration for the responsibility of the diagnosis, preparation, etc., by the attending physician, that the specialist surgeon should charge a lump sum for himself and his aids, and that the attending physician should be considered and remunerated as one of his aids in the operation, which, of course, in most cases would amount to "division of fee."

LONDON LETTER.

Tsetse Flies and Trypanosomiasis.

The study of mosquitoes in connection with malaria and other tropical diseases undertaken by Prof. Ray Lankester and his assistant, Mr. F. V. Theobald, at the Natural History Museum, has given rise to an important monograph which is published by the trustees of the British Museum. It has been so useful to medical men working on these diseases that a similar study of tsetse flies is in the course of preparation. The tsetse fly of South Africa kills horses and cattle by introducing into their blood the *Trypanosoma brucei*. Dr. Castellani, a member of the Royal Society commission sent to Uganda to investigate sleeping sickness, has found in 70 per cent. of the cases a trypanosoma in the cerebrospinal fluid. It is suggested that the parasite may here also have been introduced by the tsetse fly. Professor Lankester has just received from Uganda a box of biting flies, which Mr. Austin, the expert dipterist of the museum, found to contain 10 tsetse flies of the species *Glossina palpalis*—a West African species known from the Gambia to the Congo. Dr. J. E. Dutton and Dr. J. L. Todd, who formed the trypanosoma expedition of the Liverpool School of Tropical Medicine, have just returned to England from Senegal. The expedition left Liverpool on August 21 last and proceeded to Bathurst in the Gambia. After working in the Gambia they went to Senegal. They found that trypanosomiasis occurs in both Europeans and natives, and is distributed from the sea to the upper Gambia. In Senegal the expedition received valuable assistance from the French authorities, who gave them every facility, including a large and well-equipped laboratory at St. Louis. They report that the anti-mosquito campaign at Bathurst has caused marked reduction in malarial fevers, both in Europeans and natives.

The Journal of the Royal Army Medical Corps.

A new journal, designed for the use of army surgeons, has just appeared under the editorship of Major R. H. Firth, professor of hygiene in the Army Medical School. The first number indicates that the journal will be one of high standing. It contains a minute and well-illustrated description of the hospital arrangements on board transports and a most interesting report of the medical relief expeditions to Martinique and St. Vincent in aid of the sufferers from the volcanic eruptions of May, 1902.

The Plague.

In Cape Colony, for the week ending June 20, the following cases were reported: Port Elizabeth, 2, 1 European female and 1 native male (found dead). At the Plague Hospital 1 native male died and 1 European male and 3 native males were discharged, leaving 8 cases under treatment. Plague-infected rats continue to be found in the town. At the plague hospital in East London 1 European female was discharged, leaving 4 under treatment. At King William's town 1 European female was discharged, leaving 11 cases under treatment. At Hong Kong for the week ending June 27 there were 54 cases (3 Europeans) and 35 deaths. In the market 5 ducks, a chicken and a quail were discovered, all of which had died from plague. The birds had apparently been infected from the basement dwellings in the market, and these dwellings will no longer be allowed to be used. In this connection it may be pointed out that Dr. W. J. Simpson, during his recent visit to the colony, showed that monkeys, pigs, calves, sheep, hens, geese, ducks, turkeys, and pigeons contracted the disease by feeding on infected material. These facts have a bearing on the mode of infection in man, and the prevalent view that he acquires plague mainly by inoculation. The fact that such a variety of animals can acquire the disease from their food suggests that he may also be so infected. It is the custom of the Chinese to eat half-cooked fowls and to use the uncooked entrails as a delicacy with their rice.

Sciatica and Rheumatoid Arthritis of Hip-Joint.

At the Polyclinic Dr. W. Bruce of Strathpeffer, a health resort for arthritic patients, almost went the length of maintaining that there is no such malady as sciatica in the ordinary meaning of the word (neuritis of the sciatic nerve), but that the cases so diagnosed are examples of arthritis of the hip-joint. It might be chronic rheumatic arthritis or acute or subacute gout. The pains in the thigh and leg he explained as "referred pains." He urged that there was never any anesthesia of the skin or reaction of degeneration. Neglect of examination of the hip was the cause of the mistake in diagnosis. Three supposed cases of sciatica were produced for demonstration. The points of differential diagnosis were gone through, and it was shown that in two out of the three cases the joint, and not the nerve, was affected. But in the third case no indications of joint disease could be elicited. All movements were borne without complaint, but pressure over the nerve caused flinching.

Correspondence.

Sacrificed to Eddyism.

KANSAS CITY, MO., July 14, 1903.

To the Editor:—I presume my indignation over and antagonism to the body known as Christian Scientists is but that of other members of the medical profession who have come in contact with them in case of serious illness and death, where their great assurance of power, though ignorance in reality, and criminality are demonstrated.

How we, an organized medical profession, and a civilized people, can or do permit them to continue to treat disease and surgical conditions in spite of common and frequent deaths due to their ignorance and neglect, is beyond comprehension! Yet I realize it is due no less to my tolerance than to that of thousands of others, both of the profession and the laity. We profess to have left behind us the Middle Ages with its superstitions, its atrocities and cruelties, but daily that period is being re-enacted in the homes of our neighbors, guided by the spirit of an autocratic despot, whose power for evil is quite that of her influence to instill professed happiness into the hearts of her deluded followers.

Within the past week I was called in to see a woman 73 years of age, a beautiful character, of bright mind, and extremely well preserved, and hopeful of living for years. For three days she had been ill and under the care of Christian Science healers and their nurse. It was evident I was called in by the family because her life was despaired of. An examination revealed a right, irreducible femoral hernia, frequent emesis, absolute constipation of three or four days' duration, localized pain on and without pressure. Gentle taxis, manipulation and hot applications proved of no avail at this time, though it can not be assumed in what such means might have resulted if resorted to at onset of descent of hernia. An operation was advised without delay, since the already serious symptoms were not only persisting but increasing, but in spite of advice and the horrible fecal vomit and the patient's agony, she was demonstrated over by these people calling themselves Christians, Scientists, Healers. In consequence, she died after an awful week—a victim to a pseudo-science—and in spite of the fact that an operation would have saved her. Through the ignorance and false faith of a sect fast attaching itself as a powerful factor in social and religious circles, this life was sacrificed, in fact, murdered.

Kansas City, like other cities and towns of the United States, has, during the past few years, had many deaths among Christian Scientists, and investigation has often proved, beyond a doubt, that death was not inevitable if medical service had been rendered. It would naturally seem that such instances would awaken the followers of Mrs. Eddy to a sense of their delusion, if not criminal responsibility. But, of course, to convince such devotees as come under the spell of a master, though degenerate, mind as is possessed by an Eddy or a Dowie, is not possible. The solution must, in all probability, come through popular education along lines of health and disease, and a persistent fight by the medical profession, for the passage of laws to protect society, especially the deluded adults of such a faith as in

question, and the innocent, ignorant children who often fall victims to lack of a humanity which is Christian, and knowledge and skill which are truly scientific.

I wish to urge that the profession at large report every such case that may come to their knowledge, and that at the next meeting of the American Medical Association, proper and decisive steps be taken, seeking state and, if possible, national legislation which may limit and punish directly those responsible for such deaths. It is a sad reflection on the owners and editors of our daily press that we can not, through them, have started a propaganda against such sects; and, too, most popular magazines are loath to take a decided stand against them. Hence, as in the past, the medical profession has waged a successful fight against germ disease, it remains for it to continue with more determination than ever the struggle against a pandemic of mental degeneracy. Otherwise, we will have lost power to control and cure many diseases and surgical conditions over which we now have power, and which is giving us a yearly decreasing death rate.

SCOTT P. CHILD.

Weakness and Dilatation of the Heart in Chronic Nutritional Disease.

NEW YORK, July 11, 1903.

To the Editor:—With interest I read the paper of Dr. G. W. McCaskey with the above title in THE JOURNAL, July 11, 1903. My interest will be readily understood if I may be permitted to quote from my own writings a few practical points in regard to the relation of myocarditis or feeble heart in general to atonia gastrica, and one remark about my carbonic acid gas baths to take the place of Nauheim baths.

In the year 1895 Dr. M. Einhorn pointed out to me the frequency of the occurrences of splashing sound (that is, atonia gastrica) in cases of heart disease. We examined together a number of cases and I published the result of this investigation in a paper ("What is the Significance of the Splashing Sound of the Stomach," *N. Y. Medical Journal*, June 15, 1895). Later on I followed this subject independently from Dr. Einhorn, and called attention to the importance of this symptom of atonia gastrica in its different forms in numerous papers. Among others I had observed how it seemed to correspond in many instances with tachycardia.

In one of these papers ("Gastroptosia the Cause of Symptoms Erroneously Attributed to Nephroptosia," *N. Y. Med. Journal*, June 21, 1903) I referred to a case reported by Dr. Groddeck of Baden Baden as follows:

> An elderly gentleman is suffering for several years from attacks of vertigo and unconsciousness. Almost daily, sometimes hourly, and even at shorter intervals, the alarming symptoms appear. The frequency of the pulse is 27-31 beats in the minute; only every second contraction of the heart causes pulsation. All the physicians who saw the case diagnosticated, quite correctly, myocarditic affection and treated him accordingly, but without success. The enormously distended belly of the patient had not been taken into consideration until Dr. Groddeck paid attention to it. The reduction of the size of the belly, although it did not cure the diseased myocardium, was followed by cessation of the attacks of vertigo and unconsciousness. The size, the weight of the belly, having been reduced the work of the heart was materially relieved, relieved to such an extent that even the imperfect contractions were sufficient to fill the brain with the necessary quantum of blood. It is sometimes of more importance in cases of heart disease to examine the abdomen than to distinguish the fine points of the auscultatory symptoms.

In every case of heart disease in which I find atonia gastrica I make it a point to relieve the relaxation of the abdominal viscera by means of plaster strapping, a method which I have frequently described. I have had invariably the satisfaction to see the beneficial effect on circulation and nutrition.

The absorption of large amounts of carbonic acid gas by the skin has a remarkably beneficial effect on the circulation, whether it is introduced into the rectum or dry gas baths are taken. The capillaries and arteries become dilated, the amount of blood in both, as well as the blood pressure in the arteries, is increased. The diastole of the heart becomes more effective. These are matters of significance, for the heart and its work in so far as the intensity of the peripheral arterial circulation is augmented, and the drawing of the blood from the veins facilitated. The diastolic filling is improved, and the heart muscle is given more time for relief and for renewed energy.

The question is now, why should we use the Nauheim baths to obtain this effect pure and simple of carbonic acid gas? The Nauheim baths are complicated, accidents are at least possible by the inhalation of the gas floating on the water. The dry gas baths, as they are given in Franzensbad, are perfectly harmless, no accidents, at least when the arrangements are made as I have made them, are possible, and the patient can enter without undressing. Every physician can improvise such a bath in his office. A. ROSE.

An Indian Bath.

PHILIPSBURG, MONT., July 7, 1903.

To the Editor:—I noticed lately an article on the improvised Russian baths of the North American aborigine. In Wyoming, Idaho, Montana, Washington and British Columbia they are erected on the banks of streams, rivers and lakes, and in close proximity to a deep pool. Sometimes the work is extremely crude, just a few willow boughs slightly interlaced and barely large enough to hold an adult in a crouching position, the hole in the center, a shallow depression, and no attempt at com-

fort for the victim. Accompanying this is a photograph of the best constructed one I ever saw. It was made by Flatheads, or as they call themselves, "Selish." The length was 95 inches on the ground, and the height 81 inches in the center. The willows from each side are deftly twisted and braided together in the middle, the ends are tied with bright red flannel, of which a piece is continued over the top like a ridge pole; the hole in the center is 19 inches square, and nearly 13 inches in depth, and where the bather lies is spread with deep grass, called sometimes wild rye. This one was possibly used for more than one bather at a time. E. F. CONYNGHAM.

American Research and German Reviewers.

NEW YORK, July 21, 1903.

To the Editor:—Anent your editorial under above title I wish to state that the *Biochemisches Centralblatt* has since its inception endeavored to furnish abstracts, and in many instances auto-abstracts of all publications pertaining to the special field, and that the American collaborators have been instructed to prepare abstracts of every important article and to report the original works executed in American laboratories.

HEINRICH STERN,
American Editor *Biochemisches Centralblatt*.

Queries and Minor Notes.

MEDICAL ETHICS.

ALBERT, W. VA., July 14, 1903.

To the Editor:—1. Dr. A. is in attendance on a case of appendicitis and he decides that an operation is necessary. The family ask that Dr. B. be called in consultation. Dr. B. agrees with

Dr. A. The family then ask that Dr. B. do the operation. This is not satisfactory to Dr. A., who had expected to do the operation himself. What course should each physician pursue?

2. Recently Dr. Z., a noted surgeon, was called to a neighboring state to operate on a physician. The operation was not successful and the physician died. Dr. Z. charged the brother of the physician for his services. Was this not positively unethical? A. P. B.

ANS.—Dr. B. should perform the operation, since the family request it. The patient and the family have a perfect right to decide on who shall perform the operation, in spite of the fact that it might not be pleasant for Dr. A. in this case.

2. The Principles of Medical Ethics of the American Medical Association, Chapter II, Article 2, Section 3, says:

> When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives.

One physician ought not expect another to render his services, pay traveling expenses, etc., without remuneration. The general principle is that if a physician can render services without very great inconvenience to himself, or too much expense, no charge should be made. If, however, as in this case, the physician must make a journey to a neighboring state to render these services, he should be compensated, but compensation under these circumstances should, of course, be the minimum which will pay him for his time and trouble.

RADIUM.

STANBERRY, MO., July 20, 1903.

To the Editor:—I notice an editorial on radium in the last issue of THE JOURNAL. Can you tell me where I can get a small quantity of the metal or its bromin salt? E. T. C.

ANS.—Radium is hardly yet a commercial product, and samples are obtained more by favor than otherwise. It is thus far more of a scientific curiosity than anything else.

State Boards of Registration.

Reciprocity in Oregon.—The Oregon medical practice act was amended by the last legislature so as to provide for reciprocity.

Suit to Oust California Examiners.—On the petition of Dr. David A. Hodghead, San Francisco, suit has been begun in the Superior Court to oust the members of the State Board of Medical Examiners. According to the newspapers, the complaint sets forth that the defendants hold their places by virtue of having been elected to represent on the board the Medical Society of California, the California State Homeopathic Medical Society and the Eclectic Medical Society of the State of California, and the petitioner holds that these are simply private organizations with no legal right to appoint anybody to public and salaried offices. The petitioner is dean of the College of Physicians and Surgeons of San Francisco, which had some trouble with the board last year.

Vermont Has Reciprocity.—The following amendment of Section 4633 of Chapter 190 of the Vermont statutes provides for reciprocity. The section as amended is as follows:

SECTION 4633. Each board of censors shall issue certificates to physicians and surgeons who personally present to such board a diploma from a medical college or university, and who also, by examination, satisfy said board of censors that they are qualified to practice the branches mentioned in said diploma; and to such physicians and surgeons, without examination, who shall personally appear and present a certified copy of certificate of registration or license, which has been issued to said applicant in another state of the Union, where the requirements for registration shall be deemed by said board to be equivalent to those of this state; provided, such state shall accord a like privilege to holders of certificates from a board of censors of this state.

The application fee is $5. The act is in effect since its passage.

Practice of Medicine Defined in North Carolina.—The following amendment defining the practice of medicine was passed by the general assembly of North Carolina and went into effect March 9, 1903:

SECTION 1. That Section 3122 of the code be amended by adding thereto the following words: For the purposes of this act the expression "practice of medicine or surgery" shall be construed to mean the management or treatment for fee or reward any case or disease, physical or mental, real or imaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other methods whatsoever.

Provided, that this act shall not apply to midwives nor to nurses.

Provided, further, that applicants not belonging to the regular school of medicine shall not be required to stand an examination except on the branches taught in their regular college, to-wit: the osteopaths shall be examined only on descriptive anatomy, general chemistry, histology, physiology, urinalysis and toxicology, hygiene, regional anatomy, pathology, neurology, surgery, applied anatomy, bacteriology, gynecology, obstetrics and physical diagnosis.

Provided, that this act shall not apply to any person who ministers to or cures the sick or suffering by prayer to Almighty God, without the use of any drug or material means.

Michigan Report.—Dr. B. D. Harison, secretary of the Michigan State Board of Registration in Medicine, reports the examination held at Lansing, June 9 to 12, as follows: Number of subjects examined in, 19; total number of questions, 190; percentage required to pass, 75; written examination; total number examined, 22; number passed, 18; number failed, 4.

PASSED.

Candi-date.	Sch. of Pract.	College.	Year Grad.	Per Cent.
1	R.	Med. Dept., West. Univ., Lond., Ont.	1903	92.21
2	R.	Med. Dept., West. Univ., Lond., Ont.	1903	86.05
10	R.	Med. Dept., West. Univ., Lond., Ont.	1903	86.89
3	R.	Med. Dept., Trinity Univ., Toronto.	1903	92.84
4	R.	Med Dept., Trinity Univ., Toronto.	1903	92.15
5	R.	Med. Dept., Trinity Univ., Toronto.	1903	93.31
6	R.	Med. Dept., Victoria Univ., Toronto	1888	75.00
8	R.	Med. Dept. University of Vermont.	1896	77.57
7	R.	Miami Medical College, Cincinnati.	1887	82.21
9	R.	Cincinnati College of Med. and Surg.	1902	76.08
11	R.	Univ. Imperial Alexander, Finland.	1900	90.00
12	P.M.	College of Med. and Surg., Chicago.	1902	77.10
13	R.	Undergraduate and years of practice		*78.78
14	R.	Undergrad. and yrs. prac. lic. md. bd.		*76.52
15	R.	Undergrad. and yrs. prac. lic. md. bd.		†77.36
16	H.	Undergraduate, 4 years University of Michigan, Homeopathic Dept.		‖82.80
17	H.	Undergraduate, years of practice..		‡75.00
18	H.	Undergraduate, years of practice..		‡75.00

FAILED.

19	R.	Undergraduate		63.42
20	R.	Undergraduate		56.68
21	H.	Independent Med. College, Chicago (diploma mill)	1897	2.05
22	R.	Dartmouth Medical College.....	1886	71.78

* Fourth examination. † Board examination. ‖ First examination. ‡ First examination, oral.

North Dakota Report.—Dr. H. M. Wheeler reports the written examination held at Grand Forks, N. D., July 7, 1903, at which 25 applicants passed, out of 29 examined, in 13 subjects. The percentage required to pass was 75.

PASSED.

Candi-date.	Sch. of Pract.	College.	Year Grad.	Per Cent.
410	R.	Northwestern University, Chicago.....	1903	75
412	R.	Northwestern University, Chicago.....	1903	81
413	R.	Northwestern University, Chicago.....	1903	84
411	R.	University of Michigan.....	1903	90
438	R.	University of Michigan.....	1883	92
415	R.	University of Minnesota.....	1903	85
417	R.	University of Minnesota.....	1902	76
419	R.	University of Minnesota.....	1903	77
425	R.	University of Minnesota.....	1903	86
426	R.	University of Minnesota.....	1902	80
433	R.	University of Minnesota.....	1903	86
435	R.	University of Minnesota.....	1903	86
428	R.	University of Pennsylvania.....	1883	82
431	R.	University of Missouri.....	1902	81
414	R.	College of Phys. and Surgs., St. Louis.	1903	76
422	R.	College of Phys. and Surgeons, Chicago	1901	82
437	R.	College of Phys. and Surgeons, Chicago	1903	75
416	R.	Queen's University, Canada.....	1903	80
421	R.	Rush Medical College, Chicago.....	1901	77
434	R.	Rush Medical College, Chicago.....	1897	77
424	R.	Rush Medical College, Chicago.....	1903	91
423	R.	Hamline University, Minneapolis.....	1903	75
427	R.	Hamline University, Minneapolis.....	1900	80
429	R.	Hamline University, Minneapolis.....	1903	85
432	R.	Hamline University, Minneapolis.....	1903	77

FAILED.

418	R.	Coll. of Phys. and Surgs., Keokuk, Iowa	1897	66
420	R.	College of Phys. and Surgeons, Chicago	1900	73
430	R.	Bellevue Hospital Medical College.....	1903	72
436	R.	Marion Sims Medical College, St. Louis.	1903	*

* Only wrote on six subjects.

Marriages.

JAMES F. DABNALL, M.D., to Mrs. Ora Waters, both of Obion, Tenn.

LEMUEL P. ADAMS, M.D., to Miss Elizabeth Leigh, both of Oakland, Cal.

DANIEL SIGLER, M.D., to Miss Mayme Bresler, both of Elwood, Ind., July 14.

JAMES H. FINCH, M.D., to Miss Helen M. Trevett, both of Champaign, Ill., June 10.

ROBIN W. C. FRANCIS, M.D., Cincinnati, to Miss May Edith Schellinger of Chicago, July 4.

WALTER BERNARD SCHWUCHOW, M.D., to Miss Jennie Isabel Gridley, both of Chicago, June 30.

Elmer Kline Avery, M.D., Chicago, to Miss May Francis Power of Escanaba, Mich., July 23.

Albert Mason Tyler, M.D., Oakdale, Mass., to Miss Alice Elizabeth Walker of West Boylston, Mass., July 15.

Eugene R. Hochstetter, M.D., Ridgedale, Tenn., to Miss Cleopatra Fleatsouth of Mission Ridge, Chattanooga, June 30.

Deaths.

Donald MacLean, M.D.

Dr. Donald MacLean, president of the American Medical Association in 1894, died from gastroenteritis, after an illness of two weeks, at his home in Detroit, Mich., July 24, aged 63.

He was born in Seymour, Ont., Dec. 4, 1839, of sturdy Scotch parentage. At the age of six he went to Edinburgh and attended school there for six years. He then returned to Canada and studied in Cobourg and Belleville schools; in 1855 he entered Queen's College, Kingston, where he remained two years. In 1858 he returned to Edinburgh for his medical studies, and

DONALD MACLEAN, M.D.

four years later received the degree of M.B., C.M., and licentiate of the Royal College of Surgeons, Edinburgh.

In January, 1863, he returned to America, and entered the Volunteer service as assistant surgeon, and remained for a year in the general hospitals at St. Louis, Harrisburg, Pa., Louisville, and New Albany, Ind.

In 1864 he accepted the chair of clinical surgery in the Royal College of Physicians and Surgeons, Kingston, and in the five years of his residence there acquired a large practice and gained a wide reputation as a teacher and writer. In 1869 he was obliged to resign on account of ill health, and spent three years in Edinburgh in rest and study.

He was made professor of surgery at the University of Michigan in 1872, and for seventeen years remained with that institution, resigning in 1889 on account of irreconcilable differences with the faculty, which opposed his plan of removing the clinical department from Ann Arbor to Detroit on account of the larger amount of clinical material in the latter city. He removed to Detroit and there built up a large practice.

In 1893 Queen's University conferred on him the honorary degree of LL.D., and a year later he was elected president of the American Medical Association. He was surgeon-in-chief for the Michigan Central and Grand Trunk railways and consulting surgeon at the Harper Hospital and Children's Free Hospital for twenty years.

He was a member of the Michigan State Medical Society, and its president in 1884; of the Detroit Medical and Library Association, and its president in 1887. He was also a member of the Royal College of Surgeons, London, and a Fellow of the Royal College of Physicians; and an honorary member of the state medical societies of Ohio and New York.

During the war with Spain he re-entered the service, and was commissioned major-surgeon, and assigned to duty at Old Point Comfort, Va.

He was a clear and forceful writer, and in addition to numerous contributions to the medical press, he was a collaborator with Mr. Symes in his great work on Surgery in 1884.

Dr. MacLean was a true Highlander, warm in his friendship and relentless in his hatred. He was a strong advocate of ethics and an uncompromising opponent of anything savoring of charlatanism, quackery or professional advertising. He was a stanch friend of the young practitioner, and his kindness to his patients and consideration for young practitioners won him hosts of friends.

He was at one time a bold and brilliant operator of the old school, but of late years his physical and mental condition had been such as to retire him almost completely from all kinds of labor.

Berthold Ernest Hadra, M.D. University of Berlin, Germany, 1866, surgeon in the Germany army in 1866; a resident of Texas since 1867; president of the Texas State Medical Association in 1901; one of the first regents of the University of Texas; and one of the founders of the medical department of the university at Galveston, died suddenly at his office in Dallas, July 12, from aneurism of the aorta, aged 58. At a meeting of the Dallas Medical and Surgical Society, July 14, committees on resolutions and floral tributes were appointed.

William J. Neilson, M.D. McGill University, Montreal, 1878, a member of the Manitoba Legislature; health officer of Winnipeg; one of the organizers of the Manitoba Medical College; gifted in his professional attainments, and highly esteemed in Winnipeg, died at the Winnipeg General Hospital, July 17, from lung disease of a year's standing, caused by a piece of gum, which lodged in the lung, for which an operation was performed without avail, aged 49.

Charles M. Galbraith, M.D. Barnes Medical College, St. Louis, Mo., 1897, assistant surgeon of the Fourth Illinois Infantry, U. S. V., in the Spanish-American War, and afterward captain and assistant surgeon of the Forty-Seventh U. S. Volunteer Infantry, died at his home in Carbondale, Ill., July 23, from tuberculosis contracted while in the Philippines, aged 31.

Herbert Mickle, M.D. Trinity Medical College, Toronto, 1881, of Buffalo, surgeon to the Emergency Hospital, demonstrator of anatomy in Niagara University and attending surgeon at the Sisters' Hospital, St. Francis Hospital, and the Church Home, died at Asheville, N. C., July 21, from tuberculosis, after an illness of two years, aged 42.

William Rittenhouse Hull, M.D. Pennsylvania Medical College, Philadelphia, 1858, died at his home in Williamsport, Pa., July 17, aged 66. He was an honorary member of his state and county medical societies. During the Civil War he was assistant surgeon of the 171st Pennsylvania Volunteer Infantry.

William H. Parish, M.D. Jefferson Medical College, Philadelphia, 1870, professor of anatomy in the Woman's Medical College of Pennsylvania, and chief medical director of St. Agnes' Hospital, Philadelphia, died from heart disease, after a long illness, July 19, at Bilsey Lodge in the Adirondacks, aged 58.

James N. Dickson, M.D. Berkshire Medical College, Pittsfield, Mass., 1866, died at the Mercy Hospital, Springfield, Mass., July, 15, after an illness of two years, aged 60. He had practiced successively in Sheffield and Huntington, Mass., and for the last 20 years in Poquonock, Conn.

Samuel C. Hall, M.D. Eclectic Medical Institute, Cincinnati, 1869, St. Louis College of Physicians and Surgeons, 1892, an ex-member of the state legislature, a member of the American Medical Association, died at his home in Omaha, Ill., July 5, from pneumonia, aged 66.

Eugene Hodson, M.D. University of Maryland, Baltimore, 1856, died at Vienna, Md., July 10, from paralysis, aged 71. He was president of the Board of School Commissioners of

Dorchester County from 1872 to 1874, and in 1874 was elected to the house of delegates.

Simon C. Carver, M.D. Rush Medical College, Chicago, 1900, a member of the American Medical Association; for a time attending physician at the West Side Free Dispensary, Chicago, died from pneumonia, June 7, at his home in Chicago, after an illness of one week, aged 32.

Augustine Gattinger, M.D., one of the foremost botanists in the United States; surgeon in the Federal service during the Civil War; some-time state librarian of Tennessee, died at his home in Nashville, from pneumonia, July 18, aged 78.

J. B. Mitchell, M.D., surgeon of the Twelfth Tennessee Volunteer Infantry and the Fifth Kentucky Volunteer Cavalry during the Civil War, died at his home in Manhattan, Kan., July 2, from disease contracted during the war, aged 71.

Edward Vanderpoel Armstrong, M.D., passed assistant surgeon (lieutenant junior grade) U. S. Navy, retired, died at his home in Mount Vernon, N. Y., July 16, after a long illness from fever contracted in the tropics, aged 30.

William Goehrig, M.D. Philadelphia University of Medicine and Surgery, 1861, coroner of Lycoming County, Pa., surgeon of the Ninety-eighth Pennsylvania Infantry in the Civil War, died from acute gastritis, July 12, aged 71.

J. Ernestine Hills, M.D. Woman's Medical College of Pennsylvania, Philadelphia, 1893, physician at the Willard (N. Y.) State Hospital for the Insane, died suddenly at that institution from uremia, July 11, aged 41.

Charles A. Helvie, M.D. Rush Medical College, Chicago, 1894, died from the effects of chloroform self-administered, at his room in Los Angeles, Cal., July 10. He recently moved from Havelock, Neb., to California.

Harden E. Bozman, M.D. Dartmouth Medical College, Hanover, N. H., 1882, of New Alexandria, Ohio, died suddenly from apoplexy, July 6, while engaged in an obstetrical case, near Mingo, aged 45.

Isaac N. F. Beegle, M.D. Bellevue Hospital Medical College, 1870, a pioneer resident of Ocean Grove, N. J., died at his home in that place, from dropsy, July 20, after an illness of two years, aged 56.

Russell J. Collins, M.D. Berkshire Medical College, Pittsfield, Mass., 1850, a surgeon in the U. S. Army during the Civil War, died suddenly at his home in Georgetown, Colo., July 17, aged 75.

Francis Marion Perine, M.D. University of Buffalo, 1855, coroner of Livingston County, N. Y., for 21 years, died at his home in Dansville, July 12, after an illness of several months, aged 72.

H. H. McLellan, M.D. Medical College of Ohio, Cincinnati, 1880, formerly of St. Mary's, Kan., died at his home in Topeka, Kan., July 19, suddenly, from heart disease, aged about fifty.

F. A. Malick, M.D. Iowa College of Physicians and Surgeons, Des Moines, 1890, died at his home in Fullerton, Neb., July 17, from heart disease, after an illness of nearly a year, aged 36.

Gordon Herbert Race, M.D. Albany (N. Y.) Medical College, 1880, died at his home in Great Barrington, Mass., July 22, from heart disease, after a lingering illness, aged 50.

Andrew J. Clark, M.D. New York Homeopathic Medical College and Hospital, 1866, was fatally injured in a runaway accident at his home in Loveland, Colo., July 13, aged 74.

Alexander E. Jenner, M.D. Bellevue Hospital Medical College, New York, 1863, died at his home in Dayton, Ohio, July 12, after a long period of invalidism, aged 74.

William Preston Dowling, M.D., surgeon in the Confederate service during the Civil War, died at his home in Charleston, S. C., July 11, after a short illness, aged 70.

Alfred A. Gerish, M.D. New York Medical College, 1853, reputed to be the oldest practitioner in Indiana, died at his home in Lowell, Ind., July 17, aged 85.

James D. O'Keeffe, M.D. College of Physicians and Surgeons, Baltimore, 1873, of Tazewell, Va., died at Pulaski, Va., suddenly from heart disease, July 24.

Annie Lowe Geddes, M.D. New York Medical College and Hospital for Women, 1890, of Montclair, N. J., died from cancer, July 15, at Plainfield, N. J.

Richard R. Pettitt, M.D. University of Michigan, Ann Arbor, 1882, died at his home in Dayton, Ohio, July 9, from tuberculosis, after a long illness.

George Chappell Crawford, M.D. Long Island College Hospital, Brooklyn, 1894, died at his home in Brooklyn, July 13, after a brief illness, aged 34.

Henry A. Goodale, M.D., an old practitioner of Bay City and East Tawas, Mich., died at his home in the latter city, July 16, aged 81.

John E. Stanton, M.D. University of Pennsylvania, of Philadelphia, died at the Municipal Hospital in that city, July 11, from smallpox.

William Knight Adams, M.D. Hahnemann Medical College, Philadelphia, 1902, died at his home in Philadelphia, July 17, aged 23.

Thomas V. Loftus, M.D. University of Pennsylvania, Philadelphia, 1901, died at the Scranton Private Hospital, July 2, aged 26.

Olin G. Dyer, M.D. Castleton (Vt.) Medical College, 1844, died at his residence in Brandon, Vt., July 20, after a lingering illness.

Elias A. Howe, M.D., 1869, died at his home in Brancroft, Iowa, July 12, from Bright's disease, after a long illness.

Ebenezer E. Hyde, M.D. Castleton (Vt.) Medical College, died at his home in Belmont, N. Y., July 4, aged 84.

E. R. Dabney, M.D. New York University, 1845, died at the home of his son in Ringgold, Tenn., July 9, aged 78.

John Clarence Morgan, M.D. New York University, 1875, died recently at his home in Pompton Lakes, N. J.

Deaths Abroad.

Dr. Moritz Jacob Simon died of cerebral hemorrhage at his home at Gnesta, Sweden, June 27, aged 56 years, while making ready for a professional call. He had for many years been a member of the Board of the Association of the Provincial Physicians of Sweden, and at the same time its secretary. He was very much interested in public hygiene, an active worker for professional unity, and a faithful defender of the rights of the medical profession. Since 1898 he has been editor of *Eira*, a bi-monthly medical journal devoted largely to the interests of the country practitioners of Sweden and pro tempore also organ for Svenska Läkaresällskapet (the Swedish Medical Association).

Book Notices.

A TREATISE ON DISEASES OF THE ANUS, RECTUM AND PELVIC COLON. By James P. Tuttle, A.M., M.D., Professor of Rectal Surgery in the New York Polyclinic Medical School and Hospital. With 8 Colored Plates and 338 Illustrations in the Text. Cloth. Pp. 961. Price, $6.00. New York: D. Appleton & Co. 1902.

This volume of nearly 1,000 pages is the most comprehensive of the recent treatises that have appeared on this subject. The opening chapters are devoted to a consideration of the embryology, anatomy, physiology and malformations of the parts, to which nearly 100 pages are devoted. Methods of examination and diagnosis are then taken up, followed by a detailed description of the various pathologic conditions. A noticeable, at the same time excellent, feature of the work is the detail with which the author describes the treatment, whether operative, medicinal or hygienic. Nothing is left to be supposed, and no point which the author thinks may have a bearing on the case has been deemed too small to merit his attention. While this undoubtedly adds considerably to the size of the volume, it is a good fault, for success or failure often depends on some apparently unimportant detail of technic.

The general literature of the subject has been very well covered, and the methods of others receive proper consideration, but the author does not hesitate to say which particular method has given the best results in his own hands.

The illustrations are good and diagrammatic enough to give one a clear conception of the ideas intended to be conveyed. Most of them are new, yet occasionally one has perhaps been taken without due credit being given.

On the whole the book is a good one, and can be recommended to all who work in this line.

THE GEOGRAPHY OF DISEASE. By Frank G. Clemow, M.D. Edin., D.P.H. Camb., British Delegate to the Ottoman Board of Health. Cloth. Pp. 024. Price, $4.00. Cambridge: University Press. New York: The Macmillan Company. 1903.

This work, which is one of the Cambridge Geographical Series, is an interesting and valuable little summary of the

geography of disease. It is based on reliable information from a vast number of sources, and the author has evidently gone over the literature thoroughly. So far as we are able to observe, his statements are generally correct. It is a curious thing to notice how many formerly serious and prevalent diseases have been of late years reduced in frequency and fatality in some civilized countries, while a few have evidently increased. The modern increase of pneumonia is not fully noticed, though from the date of the work we should think it would include this fact. The author's remarks that tetanus is not apparently common in the United States would seem to need some modification at the present time. The work is illustrated by maps showing the prevalence of certain diseases and their routes of transmission which are graphic and instructive. It is a valuable addition to what we might call semi-popular medical literature, which can not fail to also be of use to physicians.

TUBERCULOSIS: Recast from Lectures Delivered at Rush Medical College, in Affiliation with the University of Chicago. By Norman Bridge, A.M., M.D., Emeritus Professor of Medicine in Rush Medical College. Cloth. Pp. 302. Price, $1.50 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

This volume contains the substance of the lectures delivered by the author in Rush Medical College during the past three years, and is a summary of his wide experience in the treatment and control of tuberculous patients. The lecture form style is retained. We have seen few treatises on this disease that are more interestingly placed before the reader than this. Dr. Bridge's ideas in some respects have been criticised, especially those on lung gymnastics, etc., but we see nothing in this volume that would call for unfavorable criticism. It is an excellent little handbook of tubercular disorders, and complete in its description.

Miscellany.

Tuberculosis Fakers.

On the subject of our editorial, July 18, we quote the following from the *Medical News:*

The following from the *Herald* is worthy of preservation in medical literature as illustrating the methods of many similar institutions:

When the prosecution is ready to act in suppressing the many so-called "Koch" cure establishments purporting to be affiliated with Prof. Robert Koch, the distinguished German tuberculosis expert, but which he has expressly repudiated no less than thirty times in letters sent to representative men in America, a mass of testimony will be ready. In addition to the data already prepared for the counsel of the County Medical Society, which has been investigating these so-called "Koch" lung cure concerns for nearly two years, it was learned last week that a former nurse at the West Twenty-second street establishment, who has also had experience at several other branches, has volunteered to tell some astonishing particulars about the manner of conducting business in these "consumption parlors."

This woman is now employed at a hospital in this city. She first entered the employ of the so-called Koch Lung Cure Company in Philadelphia, where a sort of training school for nurses is maintained by the parent office. Then she went to the Rochester establishment. Here is what she said when asked about her experience there:

"I had charge of the business department there. I received the patients when they first came to the office; I placed the advertisements, prepared the tuberculin and was the general supervisor of the office. I kept the books and banked the money most of the time."

"What was the treatment that was adopted in that office during the time you were there in charge?" she was asked.

"We got the tuberculin from the Koch Lung Cure office, No. 150 Nassau street, in little bottles containing about an ounce. This was used with six ounces of albolene. The albolene was colored for the consumption cases and bronchitis, and the tuberculin that was used for asthma was plain white. We used alkanet root for coloring."

"How many patients were cured at that place?"

"None."

"How many ever gave testimonials as to being benefited or cured?"

"I think we got three who said they had been benefited, but never any that were cured."

This nurse was then asked about a letter which she said she had written by the direction of Wallace Cleveland Clark, M.D., the head of this particular so-called Koch Lung Cure Company, running as follows:

"We are interested in your case and want you to get well. We are glad to say that, through the generosity of a wealthy lady, whom we have cured, certain money has been placed at our disposal to assist deserving cases to take our treatment. Call soon, as we are making this same offer to others, and it will be a case of first come first served. Respectfully,

"K. L. C."

"What does 'K. L. C.' stand for?"

"The Koch Lung Cure."

"Was that the way Dr. Clark directed you to write the letter?"

"Yes."

"Do you know whether or not a generous lady, or any lady, was cured by the Koch lung cure and had deposited a sum of money for the purpose of benefiting other sufferers, as stated in this letter?"

"I can say positively that I know no wealthy lady was cured in Rochester and that there was never a dollar deposited for any such charitable purpose."

"What would you say basing your statement upon your experience with the company while you were in its service, and from your observation, is the main object of the company, in its advertisements?"

"To get money, to get rich, and absolutely nothing else."

"From what you know of your own knowledge concerning the company's mode of treatment and sale of medicine and general advertisements, would you state whether or not there is any virtue in its treatment and if it does humanity good or relieves the sick and suffering from consumption?"

"I would not take it myself."

"What do you say generally, based on your experience?"

"I do not believe that it is any good."

Besides the testimony of this nurse, who has been in consultation during the last few days with Mr. Champe S. Andrews, the counsel for the New York County Medical Society, the method of the spurious "Koch" companies in obtaining testimonials has been investigated.

Here are extracts from a letter sent to a woman in Washington, D. C., signed W. C. Clark, the president of the concern:

"Dear Madam: You are probably aware of the fact that your testimonial has been inserted in the papers, and we realize that you are put to considerable trouble in answering letters and inquiries that come to you about your cure.

"Should any one desire to have you call and see them at their home and you can spare the time, we would be very much pleased to have you do it. Of course, a dollar would be a very small fee for such a visit and we would be very glad to pay it. . . .

"Kindly instruct us to answer them (the letters) for you and we will simply state that your case was cured, as stated in the testimonial. I believe that is all that is necessary. Hoping that you will take this in the spirit in which it is sent and will allow us to at least give you the amount that you would otherwise earn for the same amount of time given, I mean, twenty cents per letter and twenty cents for each inquiry. I remain, very sincerely yours, W. C. CLARK."

This adroit scheme to obtain many alleged testimonials is said to have had an odd sequel, which may be brought out in the crusade of the County Medical Society against these impersonators of the German tuberculosis investigator.

Medical Organization.

Van Buren County (Iowa) Medical Society.

The physicians of Van Buren County met at Keosauqua, July 9, and effected preliminary organization of a county medical society.

Page County (Iowa) Medical Society.

Physicians of Page County met at Coin, June 25, and organized a county medical society, with the following officers: Dr. John A. Gillespie, Coin, president; Dr. Robert J. C. Dodds, Blanchard, vice-president, and Dr. Charles F. Perkins, Shenandoah, secretary and treasurer.

St. Landry Parish (La.) Medical Society.

Physicians of St. Landry parish met at Opelousas, July 10, and organized a parish medical society with the following officers: Dr. Benjamin A. Littell, Opelousas, president; Dr. Ladis Lazarro, Washington, vice-president; Dr. William R. Lastrapes, Opelousas, secretary, and Dr. William R. Boudreau, Washington, treasurer.

Grand Forks County (N. D.) Medical Society.

Thirty physicians of Grand Forks County met at Grand Forks, July 8, and organized a county society with the following offices: Dr. John D. Taylor, Grand Forks, president; Dr. Herbert W. Matthews, Emerado, vice-president; Dr. Henry H. Healy, Grand Forks, secretary, and Dr. Robert D. Campbell, Grand Forks, treasurer.

Lafayette Parish (La.) Medical Society.

At a meeting for organization held at Lafayette, July 11, this society was formed; a constitution and by-laws on the lines suggested by the state and National associations adopted, and the following officers elected: Dr. Jean P. Francez, Carencro, president; Dr. John D. Trahan, Lafayette, vice-president, and Dr. Felix E. Girard, Lafayette, secretary and treasurer.

Jefferson County (Texas) Medical Society.

Pursuant to call, the physicians of Jefferson County met at Beaumont, July 19, and organized a county medical society, and adopted a constitution and by-laws in conformity with those of the state and National associations. Dr. William W. Cunningham was elected president; Dr. Louis Goldstein, vice-president; Dr. Guy H. Reed, secretary and treasurer, and Dr. Henry A. Barr, delegate to the state medical association.

New Hanover County (N. C.) Medical Society.

On July 6 Dr. Frank H. Russell, Wilmington, councilor for the Third District, met with the physicians of the county at Wilmington and completed the organization of the society. Dr. Thomas S. Burbank, Wilmington, was elected president; Dr. John T. Schonwald, Wilmington, vice-president, and Dr. E. J. Wood, secretary. Drs. William D. McMillan and Andrew H. Harriss, Wilmington, and S. E. Koonce, Polloksville, were elected censors.

Russell Springs (Ky.) Medical Society.

The president, Dr. James G. Carpenter, Stanford, councilor for the Seventh District, announces that this society will meet August 13 and 14; that at this time the Adair and Russell County Medical societies will be organized, and closes with the following invitation: "Let everybody come and bring his rifle and fishing tackle. Rattlesnakes are sufficiently numerous in this section of the country for each member to supply himself with the necessary antidotes before he leaves home."

Hunt County (Texas) Medical Society.

Dr. Charles E. Cantrell, Greenville, councilor for the North Texas District, met the physicians of the county at Greenville, July 7, and assisted in the organization of the county medical society under the jurisdiction of the state and National associations. Dr. Walter C. Welch, Caddo Mills, was elected president; Dr. Thomas J. Milner, Greenville, vice-president, and Dr. Milus L. Moody, Greenville, secretary-treasurer. Drs. Thomas E. Spaulding, Greenville, W. B. DeJernett, Commerce, and Garnett, were elected censors.

Monona County (Iowa) Medical Society.

Physicians of Monona County met at Onawa, July 1, and with the aid of Dr. Edward Hornibrook, Cherokee, councilor for the Eleventh District, organized a county medical society on the lines suggested by the state and National organizations. Dr. John W. Huff, Onawa, was elected president; Dr. Rueben Harmon, Onawa, vice-president; Dr. E. E. Fisher, Rodney, secretary, and Dr. Archillous A. West, Moorhead, treasurer. Drs. A. J. Moore, Onawa, W. W. Gingles, Castana, and John D. Kerlin, Whiting, were elected censors.

Dallas County (Texas) Medical Society.

Pursuant to call of Dr. Charles E. Cantrell, Greenville, councilor for the North Texas District, physicians of Dallas County met at Dallas, July 11, organized a county medical society, adopted the constitution and by-laws prepared by the American Medical Association, and elected the following officers: Dr. Vene P. Armstrong, Dallas, president; Dr. Alva W. Carnes, Hutchins, vice-president; Dr. Elbert Dunlap, Dallas, secretary; Dr. John C. Armstrong, Garland, treasurer, and Drs. W. W. Samuell, Frank J. Hall, and Jesse B. Titterington, Dallas, censors.

Societies.

Medical Society of the Missouri Valley.—The annual meeting will be held in Omaha, September 17.

Jasper County (Iowa) Medical Society.—At the annual meeting in Newton, July 16, Dr. Louis S. C. Turner, Colfax, was elected president; Dr. F. L. Smith, vice-president; and Dr. Harry P. Engle, Newton, secretary and treasurer.

Southwestern Minnesota District Medical Society.—At the thirtieth semi-annual meeting held in Windom, July 16, Jackson County was added to the jurisdiction of the society, which formerly included five counties—Rock, Pipestone, Murray, Nobles and Cottonwood.

Stephenson County (Ill.) Medical Society.—The following officers were elected at the annual meeting held in Freeport, July 9: Dr. Jeremia H. Stealy, Freeport, president; Dr. Daniel B. Bobb, Dakota, vice-president; and Dr. Robert J. Burns, Freeport, secretary and treasurer.

Henry County (Iowa) Medical Society.—At the annual meeting held in Mount Pleasant, July 14, Dr. James M. Evans, Salem, was elected president; Dr. Charles W. Gardner, Winfield, vice-president; and Dr. William S. Lessenger, Mount Pleasant, secretary and treasurer.

Denton County Medical Association.—At the annual meeting, July 7, held in Denton, the following officers were elected: President, Dr. Franklin U. Painter, Pilot Point; vice-presidents, Drs. Milton C. McBride, Denton; George G. Agerton, Argyle, and Curvier Lipscomb, Denton; secretary, Dr. Melvin L. Martin, Denton, and treasurer, Dr. James B. Honeycutt, Denton.

Association of Assistant Physicians in the Ohio State Hospitals.—At a meeting called at Columbus, July 16, this association was organized with a charter membership of 25. The following officers were elected: President, Dr. George T. Hardin, Jr., Columbus; vice-president, Dr. James F. Kelly, Cleveland; secretary, Dr. Isabel A. Bradley, Columbus, and treasurer, Dr. Nelson H. Young, Toledo.

Lehigh Valley Medical Association.—At the twenty-third annual meeting held in Stroudsburg, Pa., July 16, the following officers were elected: President, Dr. Frederic Corss, Kingston; vice-presidents, Drs. John T. Howell, Wilkesbarre, E. H. Deckinshied, Nathaniel C. Miller, Stroudsburg, and C. B. Smith; Dr. Charles McIntire, Easton, secretary; Dr. W. B. Walker, assistant secretary, and Dr. Abraham Stout, Bethlehem, treasurer. The next session will be held in Allentown in January, 1904.

Tri-State Medical Association of Western Maryland, West Virginia and Western Pennsylvania.—This society met at Cumberland, Md., July 16, and elected the following officers: President, Dr. Martin F. Wright, Burlington, W. Va.; vice-presidents, Drs. James O. Bullock, Lonaconing, Md.; A. B. White, Connellsville, Pa., and Edwin K. Wilson, Romney, W. Va.; recording secretary, Dr. Percival Lantz, Alaska, W. Va.; corresponding secretary, Dr. Frederick W. Fochtman, Cumberland, Md., and treasurer, Dr. Henry W. Hodgson, Cumberland, Md.

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ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Minutes of the Thirteenth Annual Meeting, held at New Orleans, May 4, 1903.

(*Continued from page 275.*)

Report of Committee on Revision of Constitution as to the Standard of Admission.

DR. WM. H. WATHEN, Louisville, Ky., presented the following as a minority report:

MINORITY REPORT.

MINIMUM REQUIREMENTS FOR ADMISSION TO A MEDICAL COLLEGE.

In adopting a standard of minimum educational requirements for admission to the freshman year of a medical college, to govern the members of an Association representing the entire country, the college being a department of a university, or in affiliation with a university, or with no university connection, it is necessary that concessions be made, so as to agree on what is best in the interest of the greatest number of reputable medical colleges, and in obtaining the best results in the prevention and cure of disease. A standard too high may be as harmful as a standard too low, by excluding from the medical profession men of the best minds, who are deprived of the cultural training in a large and expensive university; hence, to adopt a universal requirement of a baccalaureate degree from a recognized college or university for admission to a professional school would alike be at this time an injustice and injury to the profession and the people. Therefore, we must philosophically consider the conditions that underlie and control the educational system in this country leading up to the admission to the university and professional school, for these conditions differ radically from what pertains in other civilized countries. In England, Germany, France and other European countries, the free public school system does not offer opportunities for an education higher than that obtained in the six or eight years of our best primary and intermediate schools, and the few who are permitted to pursue their studies in the secondary or so-called high schools, are confined to the wealthy and aristocratic class, or to the well-to-do people of the middle class who are able to pay fees. Our system offers to any one a continuous course averaging from ten to twelve years from entering the primary school to the college or university, while in Germany the peoples' schools are intended primarily for the low and middle classes, and have little connection with the high schools which prepare students for the university. In Italy the connection between the elementary and secondary school is apparently closer than in Germany, but practically the reverse is true, for 90 per cent. of the children never pass beyond the third year's course of the primary schools.

In France, because of the fees charged, and the difference in organization and purpose of the two classes of schools, the graduates from the primary schools (écoles primaires élémentaires) seldom enter the high schools (lysées and colleges). The same is practically true in Switzerland, and apparently the same reasons keep down the number of secondary schools. In Zurich, where the conditions of advancement are exceptionally good, of 1872 graduates of the primary school in 1899, only 482 entered the secondary school, and probably but few of these were able to complete the course. The board schools of England, which are for, and attended by, the masses, are entirely different in spirit and in purpose from the public and grammar schools which prepare students for the university. Stimulated doubtless by the privileges and results of our public system of education, England has organized higher grade elementary schools, which may have a course of four or five years longer than the lower schools; and Germany has similarly sought to supplement the work of the primary schools by establishing real schools and higher burgher schools, but in none of these schools is either Latin or Greek taught, and the courses do not lead up to the university; the same is true in results in the higher primary schools (écoles primaires supéreures) of France.

While our system in its inception may have been in a degree fashioned after foreign models, and the establishment of our system of elementary education influenced by the description of European schools, by Mann, Stowe and Barnard, the difference between the American and European schools in organization and methods is now so great that in many features we can not and should not resemble those schools. We may in the future, as we have in the past, gain much from foreign schools, and foreign literatures, but our highest ideals must result from indigenous influences, truly American, and not ideals or practices found elsewhere.

The success claimed in the fixed courses in the German high schools in large cities to show the unwisdom of our elective courses is not sustained by facts, for in each of those cities there are several high schools whose curricula differ as widely as the various courses in a high school with us. It must also be remembered that the lycée of France and the gymnasium of Germany are intended for the few who may obtain a liberal education, while our schools supply the needs of all.

It will thus be conceded that in European countries but few pupils can be properly educated for admission to professional schools except through colleges and universities, while in the United States they can be well prepared in our free public schools. But as the curricula in our primary, intermediate and secondary schools differ, not only in various states, but even in the different schools of each state, both in time and in amount and character of work required, we should, in accepting a high school diploma as a minimum qualification for admission, correctly understand and determine the time-requirement, and in a general sense the amount and character of education given—being liberal in the allowance of electives. In view of the fact that most of our states and cities in which the public school system is encouraged and fostered require attendance upon twelve years of not less than forty weeks each from the beginning of the primary to the completion of the secondary course, the Association should finally expressly provide that the diploma of no high school obtained in less time shall be accepted as a minimum requirement for admission to a medical school. The high school can never offer fixed, or even elective courses to especially prepare the pupils for the several professional schools, nor can this be completely done in our universities, unless those studies properly belonging to the academic and scientific department be subordinated to studies that have usually been included in the professional schools, and should be retained, if we are to have any unit of measure for the baccalaureate and professional degrees.

In this process of rapid evolution in education to meet modern demands, the regulator necessary for perfect results has not worked with entire precision, having permitted the destruction or injury of many cherished precedents that time must restore, and made innovations that time must destroy. This applies especially to our well-known universities in their desire to shorten the period of university residence, by the substitution of professional work for the time-honored purely academic work; the work of the senior year, and in the University of Chicago in the two years of the senior college, being mainly professional, the pupil receiving the baccalaureate degree and advancing the sophomore or junior year of the four years' professional school, thus obtaining the baccalaureate and professional degree within six or seven years, each degree indicating that it had been obtained after attendance on four years of academic or professional work. It is also possible for a pupil whose qualifications will admit him to the junior year of the university to obtain in five, and in the University of Chicago in four years, both the baccalaureate and professional degree. This is no captious criticism, but a desire to direct attention to a heterogeneous condition, inconsistent with all classical conceptions of a university proper, and which the philosophic deductions of our most distinguished teachers and scholars will eliminate. It is especially the province of the university to teach the science and art of education, its history and methods, and create a demand for more thorough professional training: It should produce a succession of scholars in philosophy and literature, but it is not required to supply practitioners in the professions; for if the university observes its purest ideals, the professions will take care of themselves.

The degree of perfection in the work in primary and secondary schools, academies and colleges, may be measured by the perfection of the classical work done in the university, for as the sun gilds the mountain tops before its light floods the plains, so must educational progress spread from the summits, for the secondary schools receive their inspiration from the classical university, and will be what the university makes them. With the proper stimulus and encouragement of the university, the secondary schools may finally complete the work of the freshman and sophomore years, thereby reducing the university residence to six years in obtaining the baccalaureate and professional degree—thus eliminating the combined academic-professional course, and giving a unit of measure to both degrees.

In our effort to adopt the best method of education preparatory to the study of the professions, we often confound culture with instruction, and wisdom with knowledge, forgetting that culture is to quicken, strengthen and enrich the mind, while instruction furnishes the mind with knowledge, which may be

abundant, but of little value unless utilized by wisdom to obtain the most perfect results which may redound to the greatest interest of humanity. Wisdom and knowledge are not identical, but related, and the latter can not be possessed without a degree of the former. Knowledge comes from without; wisdom lies within, but by cultivation may become comprehensive and powerful. Much knowledge may be worthless unless directed by the guiding-star of wisdom. Knowledge is the material out of which we construct the beautiful palace, but wisdom is the architect who combines this material in harmonious relation, resulting in architectural perfection. Then while in our preparatory education leading up to the study of the professions, let us educate the mind to think rightly and wisely. We should encourage the study of the classics—English, Mathematics and the Sciences—but we should teach the mind how to digest, assimilate and appropriate the accumulated facts; otherwise there may be much knowledge with little wisdom, and no useful results. Teach the student the various channels and mechanisms by which knowledge may be obtained, and the mental processes by which it may be directed and utilized to attain the greatest perfection and usefulness. Teach him philosophy—embracing psycology, logic and ethics—and in a general sense the history of phil- and usefulness. Teach him philosophy—embracing psychology, of Socrates, Plato and Aristotle, the Pagan philosophy of Rome, and finally through the various ages, to Abelard, Descartes, Kant and others equally worthy.

The study of too much mathematics, as also some of the collateral sciences, should be discouraged, and the time may better be consumed in a careful study of English, and Greek and Roman history, and in the life and growth of language, especially of the philology of the languages that may be traced to an Aryan or Indo-European origin.

Of all languages except our native tongue, the study of Latin is of greatest value, and excluding the commercialism of German and French, Greek should be next in order, for even an imperfect knowledge of these two languages will enable the student to easily understand the etymology of the many compound technical terms in the study of medicine, which a knowledge of no other language will do. German can never be of much value in the study of the rich scientific literature of that language, unless it can be read with ease and correctly translated, and this can not be done by the American student of four years' study of five hours a week in our high schools. Again, in the near future, all that France or Germany may discover or develop, if of real value, will be promptly given to us in a translation, by scholars educated in German or French, English and the sciences; and even to-day we find many such translations in libraries throughout the country. Far be it from me to discourage the value of German and French, and the great richness of their literatures, but to be of value to the student in medicine, the languages must be read with ease, otherwise the meaning may not be correctly understood, for the understanding of the text must be measured by the translation. The average student in German who graduates from our high schools may read German with comparative ease in the text-books in prose and poetry, but he can not read with ease books on technical and scientific subjects, and to do so at all, he must constantly refer to his lexicon and make slow progress. This is true of our high schools in Louisville, with teachers acknowledged to be equal to any in the country, the course being four years of ten months each, five hours a week. This is also true in the state of New York, as will be seen in the following extract from a recent letter from Prof. Charles R. Skinner, state superintendent of department of public instruction: "Graduates from our high schools do not, as a rule, read with ease the German and French languages."

My information from extensive correspondence indicates similar results in the various states. Of course pupils of German parentage, or of special excellence may read and write the German language with ease. It must also be remembered that German is a required study in but few of our high schools, and in many of them is taught but two years; therefore, in adopting a minimum requirement for admission to medical college, neither German or French should be demanded, but should be encouraged as electives. Then let us adopt but few fixed subjects in our examinations for admission to a medical college, but many electives from which selection may be made, requiring one-third, or about seven out of twenty-one. In accepting a baccalaureate degree for admission, we are forced to acknowledge that it is meaningless, has no significance, and indicates nothing if conferred by the majority of our so-called academies, colleges and universities, and who is to sit in judgment to separate the chaff from the wheat, the bad from the good, the sinner from the saint? as all claim equal virtue. Then if this be true in accepting a baccalaureate degree for admission, the evil will be far greater in giving advanced standing or time-credits for such degree. So let us urge on this Association to give no time-credits for work done, except in a recognized medical college, and to insist on a discontinuance of the combined academic and professional courses. If this can not be accomplished now, it will be in the very near future, for the evolution is rapid in that direction, as indicated in the subjoined letters from the officers of the academic and arts department, and the medical department of Harvard, Johns Hopkins, Yale, Cornell, Columbia, etc. None of these universities gives time-credits for a baccalaureate degree, and Harvard and Johns Hopkins have no combined academic and professional courses, and I am sure neither Columbia, Yale or Cornell will have after a few years, for they encourage their students to attend four years of purely medical college work. The combined course was the child of necessity, to meet the demands for a shorter university residence, the medical profession refusing to recede from the requirement of attendance on four years purely medical work. As it is hardly possible to increase the university residence, the academic and arts course must be finally reduced to three, and possibly to two years, which may be done without lowering the standard by requiring applicants for admission to have done the work that has previously been included in the freshman, or both freshman and sophomore years. The secondary schools will then teach more months and more hours, with a better system and more condensed work, eliminating all that a broader experience proves to be unnecessary. The student may then graduate in medicine when he is twenty-three, twenty-four or twenty-five years old; ten to twelve years in the primary, intermediate and secondary department, two to three years in the college, and four years in medicine.

(To be continued.)

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Prophylaxis and Treatment of Baldness.

Dr. Albert Bernheim, in an article in *Amer. Med.*, states that the greatest hindrances in stopping the falling out of the hair are the indifference and impatience of the patient and the physician. In his opinion brain work is not a causative factor of baldness, as is the exclusion of light and air from the hair. He outlines his treatment as follows: 1. Time. 2. Patience. 3. Tar soap containing 40 per cent. of birchwood tar or beechwood tar to 60 per cent. of the soap mixture.

The scalp should be shampooed with this soap every day for at least eight weeks. The shampooing must occupy not less than ten minutes. The soap should then be washed off with warm water, the hair and scalp well dried by patting with tissue paper or paper napkin; it must not be rubbed dry.

4. The following should then be rubbed on the scalp:

℞. Sol. hydrarg. chloridi corros. (1 to 300)
Glycerini
Spts. cologne, ää.....ʒiiiss 100

M. Ft. solutio. Sig.: Apply locally with soft woolen tissue and rub for five minutes.

After this application, rub the scalp dry with the following solution:

℞. Beta naphthol.....gr. xv 1
Alcoholis (absolute).....ʒvii 210

M. Sig: Apply locally.

This should be followed by applying freely the following:

℞. Acidi salicylici.....ʒss 2
Tinct. benzoin.....m. xlv 3
Olei (neatsfoot).....ʒiiiss 100

M. Sig.: Rub the scalp thoroughly for five minutes.

The soap solution is employed to remove all dust which may adhere to the scalp. The sublimate stimulates the growth of

the hair. The naphthol mixture dries the scalp and removes the fatty substances and aids in absorption of the oil. The purified neatsfoot oil is supposed to be better absorbed than the vegetable oils. The author states that lanolin may be substituted if desired. Good results have been obtained in the treatment of alopecia areata in a similar manner.

In alopecia due to syphilis the following combination has been advised by Besnil:

℞	Olei cadini	m. xlv	3
	Sulphuris precip.	gr. xv	1
	Resorcin	gr. ivss	30
	Acidi salicylici	gr. iiss	15
	Adipis benzoinati	ʒi	30

M. Ft. unguentum. Sig.: Apply locally.

Lyon, in *Progrès Méd.*, recommends the following in the treatment of baldness:

℞	Quininæ sulph.	gr. xv	1
	Olei theobrom.		
	Olei ricini, ää	ʒiv	15

M. Ft. unguentum. Sig.: Apply locally; or:

℞	Tinct. cantharidis	ʒiiss	10
	Acidi acetici	gtt. xv-xxx	1.-2
	Pilocarpinæ hydrochlor.	gr. viiss	50
	Glycerini	ʒvi	24
	Eau de Cologne	ʒvii	210

M. Ft. lotio. Sig.: Apply locally with thorough friction.

Diabetic Coma.

According to an abstract in *Medicine*, Arthur R. Elliott states that prophylaxis is of the first importance. According to the author there are signs, preceding by several days the development of coma, which may be developed by examination of the urine. Acetone is the first to appear, later diacetic and oxybutyric acids. These may be detected by adding a solution of ferric chlorid which produces a wine-red color. If this reaction is present, the patient should avoid cold and fatigue. Elimination should be promoted, and the patient instructed to drink water freely. Colonic flushings and laxatives should be given. Previous to development of coma, sodium bicarbonate should be given in large doses. If coma occurs the patient should be put to bed and stimulants administered and the bowels evacuated. Alkalies should then be administered, using sodium bicarbonate hypodermically with the normal saline solution, also given per rectum.

In very severe cases a solution made up as follows should be injected into the venous circuit:

℞	Sodii bicarb.	ʒiiss	10
	Sodii chloridi	ʒiss	6
	Aq. destil.	Oii	900

M. Sig.: To be injected into the venous circuit or beneath the skin.

Lecithin in Tuberculosis.

Bernheim, according to *Merck's Archives*, recommends lecithin administered hypodermically and combined with guaiacol as follows:

℞	Lecithin		
	Guaiacol, ää	gr. xv	1
	Olei olivæ (washed in alcohol and sterilized)	ʒiiss	10

M. Sig.: Inject 15 to 30 minims (1.-2.) every other day.

Ichthyol in Chronic Bronchitis.

De Brun, according to an abstract in *Ther. Gazette*, recommends the use of ichthyol internally in the treatmtent of chronic bronchitis. It is given in daily doses of fifteen grains, made up in pill form. He reports excellent results in diminishing the cough and giving the patient rest. The dyspnea rapidly disappears and the râles over the chest decrease in number. This preparation may be given in the liquid form combined as follows:

℞	Ichthyol	gr. xxx	2
	Glycerini		
	Syr. aurantii, ää	ʒss	15
	Aquæ q. s. ad	ʒiii	90

M. Sig.: One half to one teaspoonful several times a day in water.

Chlorosis with Phlebitis.

Carrière, according to the *N. Y. and Phila. Med Jour.*, recommends, in the treatment of phlebitis complicating chlorosis, that the patient be put to bed and the affected limb immobilized, after wrapping it in cotton, for thirty days. Locally, along the course of the inflamed vein, the following is applied:

℞	Olei hyoscyami		
	Spts. chloroformi, ää	ʒiiss	10

M. Sig.: Apply locally.

In the treatment of the chlorotic condition a rich diet is prescribed and the following combination given internally:

℞	Ferri oxylatis	gr. ii	12
	Magnes. carb.		
	Pulv. gentianæ, ää	gr. iv	25
	Pulv. rhei	gr. iii	20

M. Ft. capsulæ No. ii. Sig.: Two such capsules at one dose and repeated twice daily before meals.

In order to hasten the absorption of the iron as it is absorbed in the form of the chlorid, the following is recommended:

℞	Acidi hydrochlor. dil.	m. xlv	3
	Aq. destil. q. s. ad	ʒx	300

M. Sig.: One tablespoonful after each meal.

Salicylic Acid Externally in Rheumatism.

Timireff, in *Rev. de Ther.*, recommends the employment of salicylic acid by external application in the treatment of articular rheumatism. It may be combined as follows:

℞	Spts. terebinthinæ	ʒss	2
	Acidi salicylici	ʒiiss	10
	Adipis	ʒiii	90

M. Ft. unguentum. Sig.: To be applied locally to the inflamed joint; or:

℞	Acidi salicylici		
	Olei terebinthinæ		
	Lanolini, ää	ʒiiss	10
	Adipis	ʒiii	90

M. Sig.: Apply locally three or four times daily.

By this mode of medication, according to the author, rapid absorption takes place, any disturbance of the stomach is avoided and the pain is relieved. The oil of wintergreen may be substituted for the salicylic acid if preferred.

Disturbances in Gastric Secretion.

The following treatment is recommended by Rankin in *British Med. Jour.* where there is a deficient secretion of gastric juices:

℞	Acidi hydrochlor. dil.	m. xv	1
	Acidi carbolici	gr. ii	12
	Sol. strychninæ (1 per cent.)	m. v	30
	Tinct. zingiberis	m. xv	1
	Glycerini	ʒss	2

M. Sig.: To be taken at one dose and repeated an hour after each meal, well diluted in water.

If the patient is anemic the following pill should be prescribed after each meal instead of the foregoing solution:

℞	Quin. sulph.	gr. i	06
	Ferri sulph.	gr. ii	12
	Acidi carbol.	gr. iss	09
	Strych. sulph.	gr. 1/60	001

M. Ft. pillula No. i. Sig.: One such pill after each meal.

When the patient complains of hyperacidity the following is of value:

℞	Bismuthi carb.	gr. xxx	2
	Spts. ammon. arom.	ʒss	2
	Acidi carbol.	gr. ii	12
	Sol. strychninæ (1 per cent.)	m. v	30

M. Ft. solutio. Sig.: Shake the mixture and take the entire amount at one dose and repeat it two hours after each meal.

In the nervous form of gastric disturbance the following:

℞	Zinci valerianatis	gr. iii	20
	Acidi carbol.	gr. ii	12
	Acidi arsenosi	gr. 1/40	0015
	Ext. cannabis ind.	gr. 1/4	015

M. Ft. cap. No. i. Sig.: One capsule after each meal.

Headache.

Buchanan, in *Med. Summary*, recommends the treatment of the cause. If it is dependent on gastric acidity, the stomach should be emptied and the following given:

R.	Spts. ammon. arom.	℥ii	8
	Sodii bromidi	℥ii	8
	Aquæ q. s. ad	℥iii	90

M. Sig.: One tablespoonful every two or three hours.

If the headache is due to acute cerebral congestion, the feet should be soaked ten or fifteen minutes in very hot water, an ice bag placed on the head and the following given internally:

R.	Phenalgin	℥ss	2

M. Ft. cap. No. iv. Sig.: One every two hours.

In rheumatic headache the following:

R.	Phenalgin	gr. v	30
	Sodii salicylatis	gr. x	65

M. Ft. chart. No. i. Sig.: One such three times a day.

In uremic headache the diet should consist of milk; the bowels kept regular by salines and diuresis encouraged by digitalis, caffein or the vegetable salts of potassium, as follows:

R.	Potass. citratis	℥ii	8
	Spts. juniperis	℥vi	24
	Spts. etheris nitrosi	℥ii	8
	Inf. scoparii	℥vi	180

M. Sig.: One wineglassful three times a day.

In neuralgic headaches the following:

R.	Acetanilidi	gr. iiss	15
	Caffeinæ citratæ	gr. ss	03
	Sodii bicarb.	gr. i	06

M. Ft. tablet No. i. Sig.: One such tablet every three hours.

Dysentery.

The following outline of treatment of dysentery in infants is recommended by J. F. Hay in *Med. World:* To an infant of eighteen months or older the following powder is given:

R.	Salol	gr. xx	1 30
	Bismuthi subnit.	℥iss	6
	Pulv. opii et ipecac.	gr. vii	50

M. Ft. chartulæ No. xx. Sig.: One powder every four hours.

The mother is directed to give an enema of normal salt solution morning and evening, the amount given each time depending on the age of the child. The child must be kept on a light liquid diet.

If at the end of a week the stools contain mucus and blood, an enema containing grains 40 of silver nitrate to the quart of water is substituted for the normal saline solution.

Medicolegal.

Validity of License Tax on Healers.—The Supreme Court of Kansas holds valid, in the case of Steiner vs. Liggett, a city ordinance imposing a license tax of five dollars per day on magnetic, psychic or other healers, holding that there was statutory authority conferred on the city to require a license tax from any one engaged in the calling or profession of magnetic, psychic and natural healing.

Evidence of Physicians as to Testamentary Capacity.—The Supreme Court of Appeals of West Virginia holds, in the case of Ward vs. Brown, that evidence of physicians as to testamentary capacity is entitled to greater weight than that of non-professional persons, provided they have had personal observation and knowledge of the person whose mental capacity is in question; otherwise, it is not. Expert testimony, except under special circumstances, is entitled to only such weight as the jury may deem it entitled to when viewed in connection with all the evidence and circumstances; and it is error to instruct the jury that the evidence of physicians testifying as experts only, on the trial of an issue of whether there was a will or not, is entitled to great weight.

Department Superintendent Can Not Employ Physician.—According to the Supreme Judicial Court of Massachusetts, the case of King vs. the Forbes Lithograph Manufacturing Company was brought by a physician and surgeon to recover compensation for services rendered in caring for one of the company's employes, who was injured in the machinery at its factory, and was taken to a hospital, where the physician attended him. The only evidence relied on to show a contract of the company to pay the physician was testimony that a superintendent of the company's cartoon department, who was authorized to employ and discharge workmen, told the injured employe to go to the hospital to be treated, and said that all bills would be paid by the company. There was no evidence that this superintendent of a department was authorized to make such a contract as agent for the company, and the court says that it was very plain that his authority to hire and discharge employes did not give him a right to bind the company by a contract to pay for medical or surgical treatment of one of its employes. In those jurisdictions where railroad companies have been held liable for medical attendance procured for an employe by one of their agents, the liability has been limited to cases in which there was an extreme emergency calling for immediate medical or surgical attendance. In this case there was no evidence to warrant a finding that there was an implied contract on the part of the company to pay for such services, and it was not contended that the undertaking of the superintendent was ratified.

Power of Executive Officer to Employ Physician.—The Court of Appeals at St. Louis, Mo., says that the case of Hasler vs. The Ozark Land and Lumber Company was brought to recover a balance of $135 for professional services rendered in medical attendance on and treatment of two employes of the company, during their affliction with smallpox. But it holds that the case did not fall within the well-established rule sought to be invoked by the company, that unless such relation exists between the party requesting a physician to render professional services, and the patient, as raises a legal obligation on his part to call in a physician and pay for his services, the law will not create by implication a promise to pay the reasonable value of the services thereafter performed, and such relation can not be claimed to exist between employer and employe. The testimony in this case disclosed that the physician had declined attendance on the employes until the vice-president and general manager of their employer had directed him to render the services, and agreed to pay therefor. The evidence also showed that the physician had received $40, which he claimed was in part payment, but which the company claimed was a personal loan by the official advancing it, though it was conceded to have been paid from the company's funds, and without any acknowledgment or obligation therefor given back by the physician. The testimony of the physician, the court holds, entitled him to have submitted to the jury the issue of his employment by the company to render the services performed; and it affirms a judgment in his favor. It also holds that an instruction that the jury might presume that the executive officer of a business corporation, at once its vice-president and general manager, had authority to make the contract on behalf of the company to which the physician testified, under the conditions presented by the record, was proper. The case was one essentially for the determination of a jury.

Examination Under Policy—Negligence—Removing Cast.—The Supreme Court of Appeals of West Virginia holds, in the case of Tompkins vs. the Pacific Mutual Life Insurance Company, that only a right of examination as to an injured person entitled to a weekly indemnity under an accident insurance policy is conferred on the company issuing the policy, by the following clause contained therein: "Any medical adviser of the company shall be allowed to examine the person or body of the insured in respect to any injury or cause of death in such manner and at such times as he may require." The court says that also confines the authority of the company's agent (medical adviser) within the same limit. That right of examination, and the agent's authority, however, extend to the making of the examination "in such manner and at such times" as the agent may require. It confers no right to treat the injury, and the insured is not bound to submit himself to any course of treatment at the hands of any physician that the

company may indicate. If he had bound himself to that, the obligation would have carried with it his voluntary submission to the ordinary risk to which the law holds all persons who submit themselves to treatment at the hands of physicians, and he could make the company liable only on such grounds as would enable him to recover damages from a physician employed by him. In such case a physician is held to the exercise of such care, skill, and diligence as are ordinarily possessed by the average members of the profession in good standing in similar localities, regard also being had to the state of medical science at the time. This construction of the clause quoted, the court further holds, undoubtedly creates the relation of master and servant between the company and its medical adviser in the exercise of such right of examination, and the company must answer for injuries resulting from the negligence or misconduct of its agent in the premises. Though the insured is not bound to submit to such examination, and may refuse at the risk of loss of his indemnity, or of litigation on account of his refusal, he may submit to it without losing his right to exact care and skill in its exercise; and it is no defense to his action that he consented to examination in a particular manner, if he did so in pursuance of a request or demand that it be so made. Between the physician and the insured, in such case, the law governing the relations of physician and patient does not apply. Where the injury of the insured is a sprain of the foot, requiring a plaster cast or similar appliance to hold the injured ligaments in place until they heal or regain strength, and the agent, in making the examination, removes, and fails to replace, such appliance, and injury results therefrom, he is guilty of negligence for which his principal must answer in damages. Referring particularly to the case before it, the court says that, having the right to examine in such manner and at such times as it saw fit, the company did no unauthorized act in removing the plaster cast, if its removal was necessary or desirable in making the examination, and not injurious. As to this there was no controversy. Nor did it seem to be disputed that, in the absence of directions or assent to the contrary, on the part of the insured, it was the duty of the company's agent to replace the bandage. Clearly it was, for by leaving it off the status was changed, and no right to make such change was given by the contract. In a sense, that would have been going entirely beyond a mere examination, and performing a work in the nature of treatment of the wound.

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Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York.

July 18.

1 The Struggle of Science with Old Age. J. Bandaline.
2 *The Clinical Importance of Albuminuria. Henry H. Schroeder.
3 *The Art of Increasing and Diminishing the Bodily Weight at Will. Max Einhorn.
4 *The Present Status of Subconjunctival Injections in Ophthalmic Therapeutics. Charles S. Bull.

2. **Albuminuria.**—Six cases of albuminuria are reported by Schroeder, who holds that it is impossible to determine whether albuminuria is a premonition of further trouble until the case has been kept under observation for some time. Transient albuminurias are not of serious import unless they recur too frequently. Persistent and even cyclic albuminurias should cause anxiety, and the physician should ascertain the cause and act accordingly. As a rule the earliest indications of Bright's disease will be found in the urine. Careful observation of these cases means frequent examination of twenty-four-hour specimens to find out the daily quantity, the amount of urea, the specific gravity and the presence of albumin and casts. The blood vessels and heart should receive attention. These observations may have to extend over a period of months or even years. The most frequent causes of albuminuria are excessive eating, over-indulgence in alcoholics, possibly tobacco, mental and physical stress and the gouty diathesis. The mortality among albuminuria cases is great, not only because of its association with chronic nephritis, but also on account of the poor resistance to other diseases.

3. **The Body Weight.**—Einhorn discusses the methods and indications for increasing or reducing the body weight. Physicians are frequently called on to treat emaciation and also the leanness of the healthy, which, if of too high degree, should be combated. Such persons have no reserve fat to fall back on. He holds that in 90 to 95 per cent. he has been successful in raising the body weight where he has tried it. We should inquire into the amount and quality of the food taken; how it is taken. If it is insufficient, it should be prescribed in larger quantities. If a beverage is taken at meals it should be more nutritious. In suitable cases two or three smaller meals, consisting of milk and buttered bread, may be given with advantage. It is advisable, he says, to prescribe the daily amount of butter that should be taken; he usually orders a quarter of a pound a day. The success of treatment is practically assured, if it is possible to take larger amounts of food. He thinks a glass of cold water during eating has a stimulating effect on the appetite. Outdoor life and moderate exercise are of great value. By the successful addition of food and exercise we have not only an increased formation of adipose, but also of muscular tissue and gain in strength. The body weight should be reduced as soon as there is a surplus of fat, which is displeasing to the eye or mars the harmony of the body. There are two ways: diminishing the amount of food or increasing the amount of work, or a combination of both. Practically, he says, we should proceed to determine exactly under what dietary an individual remains in a state of bodily equilibrium. If he has not gained, you may take the amount of food he has been taking as the standard, but if he has gained on it, it should be diminished. The weight of the patient should be controlled every two or three days. As soon as the amount of food necessary to keep a proper equilibrium has been determined, we must begin slowly to increase the muscular work, never allowing the patient to become exhausted. The accelerated heart action and respiration must return to the normal ten minutes after beginning to rest. If this is not the case, the work must be reduced. By the methods here employed the fat is distributed where it will not interfere with muscular action.

4. **Subconjunctival Injections.**—Bull's article is almost entirely a review of the work and the recommendations of others. From an examination of all the papers and cases reported, he concludes that the efficacy of the solution injected can not be ascribed to local acceleration of the lymph currents, the so-called leucocytosis, nor to the antiseptic action of the remedies employed, since the presence of such processes can not be demonstrated in the tissues of the eye after injection. The chief change seems to be in the composition of the aqueous humor and the explanation of the action of the subcutaneous injections is to be sought in their local irritating properties. A careful observation of his own cases has not convinced him that subconjunctival injections bring about any more rapid or favorable results than other methods of treatment, excepting in cases of orbital cellulitis of an infectious character where injections of a sublimate solution did have a favorable effect in hastening the suppurative stage and reducing the infiltration. He thinks all reports of the beneficial effects of subconjunctival injections should be carefully criticised and compared with the results obtained by other methods of treatment before accepting them as of any real value.

New York Medical Journal.

July 18.

5 *Artificial Immunity in Experimental Tuberculosis. E. L. Trudeau.
6 *A Statistical Report of Gastrotomies for Removal of Foreign Bodies from the Stomach. Julius Friedenwald and L. J. Rosenthal.
7 The Subcutaneous Use of Paraffin in Deformed Noses, with a Supplementary Report. Hal Foster.
8 A New Obturator for the Urethroscope. I. H. Jacob.
9 *Subconjunctival Medication, with Special Reference to the Use of Salt-sugar Solution in Acute Affections of the Anterior Portion of the Eye. Howard McI. Morton.
10 A Case of Black, Hairy Tongue. R. H. Johnston.
11 The Temperature in "Summer Complaint." William B. Waugh.

5. **Immunity in Tuberculosis.**—Trudeau reports his experiments which, like those of de Schweinitz, antedated those of Behring. He has used only small animals, guinea pigs and in these he has not obtained an absolute immunity that will protect overwhelming infections, but still they show that the latter condition is not comparable with ordinary exposure in every-day life. He thinks the principle has been established and that with a more thorough knowledge of it we may yet get considerable immunity. Behring has shown an absolute protection of calves and if we can only do as much for babies one of the greatest problems of the medical profession will be solved.

6. **Gastrotomies for Foreign Bodies.**—Friedenwald and Rosenthal analyze the published cases of gastrotomy for foreign bodies in the stomach, showing that it is best to remove them as early as possible by gastrotomy as delay may produce serious gastric disturbances and make further operative procedure more difficult and serious. They give a tabulated statement of some ninety cases from the literature.

9. **Subconjunctival Medication.**—Morton advocates the use of physiologic salt with 3 per cent. sugar solution added for subconjunctival injections. Its use thus far has been confined to cases of pneumococcus ulceration of the cornea, to forms of plastic iritis associated with rheumatic disease, traumatic infected ulcer of the cornea and dendritic ulceration. In all these classes of cases it has been his regular practice to use injections of 2 to 4 grams, or even 6 grams, of salt-sugar solution, using the ordinary hypodermic syringe with a capacity of 1 c.c. and filling the subconjunctival space about the corneal margin entirely. This necessitates the introduction of the syringe at several points just anterior to the insertion of the recti. In sthenic individuals with one eye alone involved, the injection of a large amount of fluid subconjunctivally is the best procedure, to be followed by slight pressure from Liebrich's pad, and the patient is directed to use hot fomentations for periods of five minutes with half-hour intervals. He has never yet seen an eye suffer from this operation. The injections were preceded by the instillation of a 4 per cent. solution into the cul-de-sac, thus causing but little or no pain. He thinks the use of subconjunctival injections is limited to the more severe and intractable cases. Ordinarily the office methods are sufficient for the common forms of disease involving the anterior ocular segment, but he does believe that this method of medication assists in promoting resolution more rapidly in certain intractable cases than the usual local measures.

Boston Medical and Surgical Journal.

July 16.

12 The Sources Favoring Conditions and Prophylaxis of Malaria in Temperate Climates, with Special Reference to Massachusetts. (To be continued.) Theobald Smith.
13 *Subparietal Injuries of the Kidney. (Concluded.) Francis S. Watson.

13. **Subparietal Injuries of the Kidney.**—In this conclusion of his paper Watson gives an account of 6 personal cases and discusses the treatment. He first calls attention to the high mortality with expectant treatment and the low mortality in the series operated on otherwise than by nephrectomy. Hemorrhage is the factor which needs the most attention, and the source of it should be at once sought for by laparotomy when it announces itself by the presence of free fluid in the peritoneal cavity or by other signs of progressing hemorrhage. The details of operative treatment are given rather fully. The first fundamental principle is to save the kidney, or as much of it as possible, and make only a partial nephrectomy if only a portion of the organ is damaged, closing the kidney wound by suture. If one has to choose whether the spleen or kidney is to be removed, let it be the spleen. In liver involvement the tampon and suture are appropriate and often successfully used. In uncomplicated cases, not presenting any evidence of progressive hemorrhage, a question as to expectant treatment may be raised. In the great majority, where the hematuria is of short duration, or slight if of long duration, and when it is not secondary, and when no signs of progressive hemorrhage are shown by the patient, expectant treatment may be employed. Otherwise, operative treatment should not be delayed. The conditions that call for prompt surgical treatment are sudden disappearance of blood from the urine if accompanied by pain and the appearance of tumor or increase in the size of an existing tumor, showing that the pelvis or ureter has become blocked; also retention of urine in the presence of clots as well as the signs already mentioned. In regard to the danger of infection, surgical intervention seems to be indicated, he thinks, when there is a tumor in the loin which does not subside within a reasonable time, say a fortnight; when the bladder is already infected or becoming so, or is liable to become so from the necessity of frequent catheterization, as in prostatic obstruction, and when there is retention due to blood clots; lastly, if there is any reason to suspect previous existence of such diseases of the kidney, as tumors, calculus, pyelitis or pyelonephritis. He finds but 7 cases in the literature where suture of the kidney has been performed, or 8 including the one here reported. He thinks that while his case and one other were unsuccessful, it is worth while to apply the suture in such cases as are amenable. As regards the lumbar and abdominal routes for nephrectomy, he finds the death rate only slightly higher in the latter, and when we leave out complicated cases the figures are even more favorable for the abdominal route. As regards the decrease in the death rate of the two operations during the past thirty years, it has been apparently much greater with the latter than the former.

American Medicine, Philadelphia.

July 18.

14 *On Diseases of the Gall Bladder and Bile Ducts. C. A. Ewald.
15 *Diseases of the Skin. George J. Bucknall.
16 *Tuberculous Ulceration of the Rectum and Anus. Lewis H. Adler.
17 *The Etiology of Leukemia. John Benjamin Nichols.
18 *Treatment of Eclampsia. William Krusen.
19 Scarlatinal Arthritis. E. Paller.
20 A Season of the Pioneer Resident Physician in the Yosemite Valley, 1901. Charles V. Cross.

14. **Diseases of the Gall Bladder and Bile Ducts.**—Ewald's article discusses the diagnosis, more particularly of the diseases of the gall bladder itself, noticing the symptoms of colic, icterus and tumor. In conclusion he remarks in regard to treatment, holding as regards operation that the circumstances are comparable to those of appendicitis, but in case of gall-bladder disease operations are much more difficult and more severe in their consequences than those of the appendix. During the acute inflammatory stage he advises treating the colic by the known means of relief and in addition washing out the stomach with hot water or with a solution of nitrate of silver (Ehrlich), or the drinking of large quantities of hot water. In severe acute infections immediate operation is advised. In patients with rapidly recurrent favorable attacks he prefers internal treatment; in unfavorable cases with recurrent attacks he advises operation. In cases of long standing obstruction or compression jaundice he advises operation according to the individual case. A positive diagnosis of compression jaundice indicates immediate operation. On the other hand, in cases of obstruction jaundice by stone he believes that if the patients can take care of themselves properly and use no extra exertion, operation may be delayed for some time. The fact that healing of the wound after operation has so many threatening circumstances, leads one to wish to spare the patient the ordeal as much as possible. In any case preventive means against recurrences should be employed.

15. **Diseases of the Skin.**—The importance of diet in relation to skin diseases is emphasized by Bucknall, who thinks that the quantity of the food, as well as its quality and method of giving and the time at which it is taken, may all be of importance. There is no universal table of diet in these cases. Carbohydrates in excess are injurious; pastry should be especially avoided. Alcohol is harmful even in small quantities in many skin diseases. Tea frequently does harm; coffee and coca are less injurious, but should be taken in moderation. He has no doubt as to the harmful effect of tobacco in certain cases. The climate and air also have their influence and too frequent washing, depriving the skin of its fat, may have some bad effect. The common notion that suppression of diseases of the skin is injurious has no definite facts for its

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support. It is probably based on the observation that in some cases of eruptive fevers if the rash does not come out or recedes, the constitutional symptoms appear to be more severe. An accurate diagnosis is the very first essential. We must not imagine that when we know the cause the treatment that is most obvious is necessarily the best. As to external and internal treatment, one may be better in one case and another in another. He particularly speaks against the routine use of arsenic, which will always aggravate skin diseases of the acute type. It is of value only in cutaneous diseases of the scaly character, psoriasis, lepra, etc., and then requires careful watching to obviate the destruction of red blood cells. Baths are often of value. There is a risk of absorption by the skin of substances from the bath, therefore they should never contain anything that might be dangerous to absorb. Permanent baths are but little used in this country, though they are occasionally of great use. They are troublesome to manage, however, and of but limited application. In parasitic or fungoid diseases of the skin when baths are advised, he prefers for the medication the albuminate of mercury which if absorbed is not harmful. Ointments are most frequently prescribed, but they are uncleanly and may often be replaced by other applications. When there is a profuse secretion from the skin lotions and dusting powders are advisable. The author speaks of dymal (salicylate of didymium), recommended by Kopp, in certain forms of dermatoses, eczema, psoriasis, etc. He has seen it do excellent work in weeping eczema. As the skin disease varies from time to time it will be necessary to alter the local treatment and its application. It is better, he says, to have in mind the therapeutics of a few substances and the best means of using them than to be making hasty inconclusive trial of every new preparation or treatment that is devised.

16. **Anal Tuberculosis.**—The reason why there is not more intestinal or rectal tuberculosis is briefly discussed by Adler, who thinks it is possible that the gastric fluids may be destructive to the germs, and it is only when they are in excessive numbers that these parts are attacked. He suggests a treatment on this basis, that is, the use of essence of pepsin, acidulated with 2 drops to the ounce of a strong nitromuriatic acid applied directly to the ulceration either with the atomizer or on gauze left in contact with the parts. Systematic treatment by the use of some of the other remedies was also usually employed. His experience thus far with two cases has been sufficiently encouraging to warrant the mention of the matter, but he can not speak with authority as to the final outcome.

17. **Leukemia.**—From a general discussion of the subject, Nichols concludes that heredity, trauma and precedent disease conditions may have a causative influence, but are of only subsidiary etiologic moment in leukemia. Almost nothing is positively known as to the specific primary cause. A nervous origin has been suggested. Aside from this, the best explanation seems to be limited to: (*a*) That it is due to a vice in the internal processes of cell life and division that comes into generalized activity and results in exaggerated leucocytic hyperplasia; (*b*) that it is due to the action of toxic substances, autogenous or of parasitic origin; (*c*) that it is of infectious or parasitic origin, the parasites acting by the production of toxins or otherwise. Only the latter has been subjected to investigation and a considerable amount of bactericlytic evidence been accumulated, but barring three or four doubtful exceptions is entirely negative as to the etiologic association of bacteria with leukemia, or as to the transmissibility of the disease.

18. **Eclampsia.**—On general lines the treatment advised by Krusen is, first, prophylactic; observation of the condition of the urine, especially the amount of urea excreted, keeping up a healthy action of the skin and elimination generally. He rather endorses the suggestion of Nicholson as to the relation of the thyroid gland to eclampsia and the use of thyroid in medication, and holds that on a thorough investigation of the relation between the thyroid gland and pregnancy depends much of our future success in the management of pregnancy and eclampsia. For the treatment of convulsions he holds that chloroform is one of the most reliable agents, and during the intervals venesection is one of the most important measures, though it has somewhat fallen into disfavor. Personally he thinks it is better than veratrum viride. When the pulse shows high tension and the face of the patient is suffused or almost cyanotic, bleeding should be employed. The depressing effect can be counteracted and the unknown toxins diluted by normal salt solution injections, intravenously, subcutaneously or by the rectum. There is no more valuable addition to our therapeutic resources in the last decade than normal salt solution. For purgation to aid elimination, croton oil, calomel, or a saline may be administered; to secure results a high enema of magnesium sulphate, glycerin and water should be given. He does not favor prolonged packs or baths. A brief warm bath may have a soothing effect. Morphia has a useful place and there is an undoubted tolerance which allows the use of large doses. It has great power and rapid action in preventing repeated convulsions in certain cases. In the majority of cases the convulsions cease soon after the uterus is emptied, and if eclampsia comes on when the child is viable, then extraction becomes advisable. He would not, however, advise cesarean section, as has been proposed. It is only justifiable when there is some reason for it. He thinks if the patient is actually in labor, in the second stage, the immediate emptying of the uterus is indicated. Mechanical dilatation of the cervix and deep cervical incisions are the best plan of treatment. The sooner it is begun and completed the better the chances of recovery. The eclamptic woman is especially liable to infection after delivery on account of the manual interference and traumatism undergone. Extraordinary care should be observed during the after-care of eclampsia, along the ordinary lines, but with more rest and quietude and with more vigilant attention to all the excretory organs.

Medical News, New York.

July 18.

21 •Presidential Address on the Care of Epileptics. Frederick Peterson.
22 •Nature, Frequency and Possible Significance of the Various Forms of Epileptic Aura. William P. Spratling.
23 •The Daily Rhythm of Epilepsy and Its Interpretation. L. Pierce Clark.
24 •On the Pathology of Epilepsy. Adolf Meyer.
25 The Legal and Social Standing of the Epileptic. Edgar J. Spratling.
26 •Therapeutic Suggestions in Diphtheria. Louis Fischer.
27 A Report of a Case of Spina Bifida; Operation; Death. Charles Greene Cumston.

21. **The Care of Epileptics.**—Peterson reviews the history of the methods of care of the epileptic before the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics.

22. **Epileptic Aura.**—Spratling's article is detailed and lengthy, giving a large number of the principal symptoms that may precede the epileptic attack, both psychic and physical. His experience leads him to believe that the more sudden, severe and complete the attacks the less likely is it to be preceded by an aura. The further the convulsion departs from the classic type the more common and distinct the aura. The symptoms of aura justify close and analytic study as contributing possible guides to the seat of the disease.

23. **The Daily Rhythm of Epilepsy.**—From the study of 150,000 seizures, Clark finds that there is a more or less definite daily rhythm in the epilepsies, in the early evening, the noontime and early morning, roughly dividing the twenty-four hours of the day into eight-hour periods. There are also smaller or secondary rhythms. The interpretation of the rhythm is explained on the basis of cerebral fatigue and the accumulation of waste products at these periods which produce autointoxication, and which in turn exhibits itself in seizures during light sleep and during the day when the loss of cerebral inhibition is greatest. Secondary and contributing factors are manner of living, diet, exercise, occupation, sedatives and the character of the epilepsy.

24. **Pathology of Epilepsy.**—Meyer criticises the methods of study and finds that the anatomic ideas of epilepsy have not as yet any very decided support by reliable data. There have been certain researches, however, in the last five years which

are fundamental, such as that of Prus, who shows that cocainization of the cortex makes fits by electrical stimulation impossible, thus indicating that stimulation of the sensory elements of the cortex is essential to start any fit. He also points to many irregularities in the irradiation of the discharge over the cortex, and shows that not only the pyramidal tracts, but the segmental motor paths are the carriers of the impulses from the cortex to the segmental nerve-complexes. Bier has also refuted Kocher's idea that intracranial pressure is the cause of the fits, as he did not produce them by sudden increase of the pressure by temporary strangulation, even in epileptics. The second line of research of importance is that of the relation of metabolism to fits, and here we have much confusion in experiments and their results. Meyer thinks, however, it would be fair to say that with attacks of epilepsy go expressions of an abnormal state of equilibrium, evidenced by malaise and abnormal metabolism. Autointoxication is not demonstrated. The explanation of the occasional toxicity of the urine and blood for animals is still wanting. He does not as yet place any too much value on the ideas of Bra or Ceni, whose brilliant experiments with epileptic serum have been noted. He calls attention in this connection to the important psychic factor in all the new methods of treatment of epilepsy. He thinks there is at present a large material of safe empirical facts which has led to improvement in the condition of epileptics and their management. There are still good chances for a better utilization of what we know. The pathology of scientific medicine has added little, and it does not seem to give much immediate promise. He concludes as follows:

1. The frequency of nervous lesions in epileptics is difficult to establish. The ordinary examination is too open to oversights, and must be very systematic in order to justify the verdict of negative findings. The great variation in the number of sclerosed cornu ammonis, diffused gliosis, small foci of softening quoted by various authors, is certainly, to a large extent, an expression of variable attention, a picture of the psychology of investigators rather than of the distribution of facts.

2. Concerning the chemical investigations, the same psychologic factor of personal interest is even more deleterious to a fair comprehension of the facts. The truism that observation of the rules of hygiene in every direction is a great factor in the management of epilepsy, is decomposed into innumerable currents of interests. Nothing short of unprejudiced and complete series of investigation will help us here, and also a much greater conservatism with complicated methods, such as the tests of toxicity, the results of therapeutics, etc.

3. All these conditions are difficult to attain except in sufficiently equipped institutions, for which funds should be made available by the state, and by scientific corporations, so that they may work free of the need of sensational results, create a sound basis in clinical work and systematize the investigation according to methods which can be admitted as safe and fruitful.

To what extent this had best be carried is a question requiring much judgment. The one thing is certain—and every move in this direction should receive credit and encouragement—that institutions should be given a chance and should even be put under the obligation of doing justice to medical observation, of promoting the medical interests of its physicians and of laying a good foundation of experience, such as the isolated practitioner can never get for himself. On such ground more delicate investigations will find a healthy soil.

26. **Diphtheria.**—The specific treatment of diphtheria consists in giving the required dose of antitoxin, which depends on the severity of the affection; in mild cases 1,500 units in a child from 1 to 5 years. It should be repeated if the effects are not noticed within twelve to twenty-four hours. A child 5 to 10 years old should be given 2,000 units when it is first injected, with the same repetition if required. With severe toxemia and marked general depression and large pseudomembranes in the throat at least 3,000 units should be injected in the beginning. Two or three injections may be required at twenty-four-hour intervals, depending on the pulse, temperature, condition of the swollen glands and microscopic condition of the throat. In laryngeal stenosis it is also well to give fully 3,000 units, repeating with 1,500 in twelve hours if the stenosis does not disappear within that time. In many cases the pure Klebs-Loeffler bacillus is not the only infection and streptococcic antitoxin serum will be required. In a few he thinks the bacteriologic findings will be a guide to treatment, based on scientific data. The ordinary shortcomings that are most frequently encountered consist of placing too much reliance on the specific nature of the antitoxin regardless of other vital necessities. The indication next to antitoxin is for restorative treatment; proper feeding is essential. When it is difficult to feed by the mouth, it is a good plan to let the stomach have a rest and depend on rectal feeding. It is always advisable to remove putrid mucus from the nose and throat and catarrhal discharges to prevent their poisoning the system. It is surprising to see what good results are apparent, he says, after cleaning the nose and pharynx. As regards the solvent action of local remedies, he has not been able to see its value, though 2 per cent. sulphurous acid has been used by him to advantage, and is better than peroxid of hydrogen. He has used inunctions of unguentum Credé into the cervical glands. Fresh air in the sick-room is important and oxygen is indicated when there is cyanosis. The best antipyretic measures consist in sponging with evaporating lotions such as alcohol and water or acetic ether, locally. Cold packs and flushing the bowel are serviceable in some cases. If there is pneumonia, nephritis or other complication it should be treated as though the disease existed independent of the diphtheria. He advises an examination of the ears, as otitis media will sometimes keep up a high fever until the drum is ruptured. Ten to 20 drops of sweet spirits of niter are valuable, given several times a day, and calomel in 1/10 to ½ grain doses, repeated several times a day, is a useful adjuvant. Stimulants should be begun early, strychnin 1/100 of a grain for children one year old, repeated four times a day and gradually and cautiously increased. Children tolerate large doses. He also advises Tokay wine, caffein and champagne to support the heart's action.

Cincinnati Lancet-Clinic.

July 18.

28 Adenoids—Their Symptoms; Relations They Sustain to Acquired Deaf-mutism, and Treatment. Benjamin L. W. Floyd.
29 The Kentucky State Medical Society, 1903. George J. Monroe.
30 Surgery of the Prostate, Pancreas, Diaphragm, Spleen and Thyroid. (Continued.) B. Merrill Ricketts.

Louisville Monthly Journal of Medicine and Surgery.

July.

31 President's Address, Medico-Chirurgical Society. B. A. Allan.
32 *Cancer of the Rectum. F. W. Samuel.
33 X-Rays; the Action on the Physical Organization. Jacob Glahn.
34 Some Experiences with the X-Rays as a Therapeutic Agent; Report of the Cure of a Case of Alveolar Melanotic Sarcoma. Edwin Walker.
35 *Surgery of the Hand in Factory Practice. L. P. Spears.
36 The Early History of Transylvania University. Francis M. Greene.

32. **Cancer of the Rectum.**—The progress that has been made in the treatment of cancer of the rectum and the various operations suggested are first noticed by Samuel, who remarks on the insidiousness of the onset and the lack of characteristic symptoms. His own experience leads him to regard as one of the earliest symptoms a sense of fulness in the rectum accompanied by a mucous discharge, first noticed by the patient as simply a liquid discharge, with occasionally a slight amount of blood. Stenosis may be the first sign which forces the patient to seek relief. Bloody discharges may precede it. Pain is a marked feature in the later stages. The prognosis is a gloomy one, hence the advisability of early examination of all irritating conditions of the rectum. He notices the operative methods which, in his opinion, give the best results. The operative cases are where the obstruction is not marked and the infiltration has not progressed beyond the rectal walls. Much will depend on the location of the growth. He thinks the greatest advance in the future will be based on the fact that in most cases operators will entirely obliterate all the bowel below the site of the excised portion, and abandon the idea of establishing a continuity of the rectum by bringing down the upper part of the gut and suturing it to the intact sphincter. He advises the following steps as essential: That an artificial anus be made or anticipated by doing a preliminary colostomy in preference to the more radical operation. This will permit better disinfection by irrigation, which improves the patient's condition. With the growth high up in the rectum he would be influenced by the late teachings of Quénu, Abbe and others, and select the abdominal route, extending the usefulness of the operative procedure in that it could be made more radical in attacking lymphatic involvement, and that the ends of the bowel, if possible, might be brought out at the time

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of operation or an artificial anus established at once. In obliterating the distal portion we get rid of the danger of infection by offensive discharges and incomplete operation. With preliminary colostomy fecal defilement is gotten rid of. He has had no experience with the combined abdominal and sacral route, but is encouraged by the results of Quénu and Abbe. Two cases are reported.

35. **Surgery of the Hand.**—Spears advises in factory practice with injuries of the hand to use conservatism to the utmost. Let the preliminary dressing consist of sterile gauze and the blood present if the man has been working in iron. If a woodworker, it is advisable to wash out the fine dust. Gasoline or benzine is best for cleaning the surrounding area. The use of bichlorid should be done away with and suture material should be abandoned in injuries of the fingers. A sterile wet dressing is to be used where suppuration has taken place.

Medicine, Detroit.

July.

37 *Septic Sinus Thrombosis Due to Ear Infection. B. Alex Randall.
38 *Laparotomy Convalescence, with Reports of Twenty Illustrative Cases. Robert Wallace Hardon.
39 *Management of Crossed Eyes in Children. Willis O. Nance.
40 The Clinical Aspect of Diarrheas in Infancy, with Treatment. James W. Van der Slice.
41 Three Cases of Atrophic Rhinitis Successfully Treated with Benzoylacetyl-Peroxide (Acetozone): a Preliminary Report. James M. Brown.
42 *The Effects on Streptococci of Blood Serum from Cases of Scarlatina. George H. Weaver and G. F. Ruediger.
43 Serum Therapy. John G. Cecil.
44 The Diplococcus Scarlatinæ. W. J. Class.
45 The Etiology of Acute and Chronic Cystitis. C. B. Van Aradall.
46 *Euphthalmin as a Mydriatic for the General Practitioner. Albert B. Hale.

37. **Septic Sinus Thrombosis Due to Ear Infection.**—Randall reports two cases of sinus thrombosis from otitis, one fatal, and argues for early operative intervention in these cases.

38. **Laparotomy Convalescence.**—The question as to how soon patients should get up after abdominal operation is discussed by Hardon and his experience in twenty cases of laparotomy where the patient was up within from one to four or five days is detailed. His conclusions are that early getting out of bed tends toward greater comfort to the patient, shortens the stay in the hospital, there is earlier general convalescence, less danger of adhesions, diminished expense to the patient or charitable institution, while it avoids muscular atrophy from disuse and facilitates nursing.

39. **Strabismus.**—According to Nance, the ideal treatment in strabismus includes the establishment of binocular vision, which can usually be brought about by early treatment and, in a large proportion of cases, only by persistent and painstaking efforts on the part of the physician and parents. Delay in treatment renders less probable a perfect cosmetic result and endangers the probability of normal vision. The use of atropin is indicated early and glasses in most of the cases as soon as the patient is old enough. The monocular occlusion pad and various orthoptic exercises are valuable adjuncts to successful management. A thorough skiascopic and ophthalmoscopic examination by a competent ophthalmologist should precede the use of glasses. All astigmatism, as well as hyperopia or myopia, must be fully corrected and the correction ordered for constant use. Operative interference is justifiable and indicated after other measures have proven of no value, or in certain instances where the deviation is so extreme as to render inefficient ordinary orthoptic exercises.

42. **Streptococci in Scarlatina Serum.**—From experimental results with blood serum from scarlatina cases controlled by others with serum from normal individuals, Weaver and Ruediger conclude that neither normal nor scarlatinal blood serum possesses *in vitro* any appreciable bacteriolytic effect on the streptococci, and since normal blood serum exhibits no destructive action on streptococci it is illogical to ascribe terminal and other streptococcemias to any reduction in such action. The results obtained by using the colon and typhoid bacilli alone as indicators for the bacteriolytic complement serum can not be applied to other forms of bacteria, but each form must be tested separately.

46.—See abstract in The Journal, xl, p. 1305.

Buffalo Medical Journal.

July.

47 Local Conditions of Geography and Population as Bearing on the Water Supply and Sewerage of Buffalo. A. L. Benedict.
48 *Why Minor Gynecologic Operations Fail to Give Anticipated Results. Sigmund Goldberg.
49 Clinical Memoranda on Cough. Leopold F. W. Haas and G. A. de Santos Saxe.
50 Some Thoughts on Modern Medicine. A. W. Bayliss.
51 St. Louis and the Exposition of 1904. Nelson W. Wilson.
52 Multiple Abscess of the Liver. E. L. Ruffner.

48. **Minor Gynecologic Operations.**—Goldberg summarizes his paper in substance as follows: All so-called minor operations, to be of permanent use, must be performed within at least one year from the time of beginning of the original lesion. After one year either the Alexander operation, trachelorrhaphy or curettage, or all combined, will be insufficient to restore the patient to perfect health. The reason for such failure in most cases is the involvement of the adnexa. The best course would be some operative intra-abdominal procedure, not by the internal inguinal ring method of Goldspohn, but by free incision, so that the exact conditions can be learned and properly treated.

Chicago Medical Recorder.

July 15.

53 *Ovarian Transplantation and Reconstruction of Fallopian Tubes. Franklin H. Martin.
54 *Report of Thirty Cases of Perineal Prostatectomy. John B. Murphy.
55 *Report of a Case of Elephantiasis Due to the Filaria Sanguinas Hominis Nocturnis. Mary M. S. Johnstone.
56 Pancreatic Cyst; Carcinoma of the Stomach. A. E. Halstead.
57 *Hysterical Affections of the Eye. H. Gradle.
58 *Iodo-Nucleoid; a New Organic Iodin. W. L. Baum.
59 Uremia: Shortcomings of Certain Urinary Tests. Merlin Z. Albro.
59½ Hygiene in Summer Complaints. William F. Waugh.

53. **Ovarian Transplantation.**—Martin reports two interesting cases where patients that had suffered from the loss of their ovaries came to him asking to have them restored. In each case he had the patient take a lodging near the hospital at which he was engaged, waiting for an opportunity to obtain fresh ovaries from some other subject. The operations were performed by transplanting portions of the ovaries which he had removed from other patients, into the broad ligament outside the horn of the uterus on either side. In both patients there was perfect recovery from the operation and signs of menstrual molimen, though no complete menstruation as yet. In both cases the ovaries had been removed long enough so that an artificial menopause had been thoroughly established and atrophy of the uterus had taken place. The preliminary operation had also destroyed the tubes or oviducts, making it necessary to reconstruct the oviducts from the atrophied remaining portions of amputated tubes and the horns of the uterus. The operation was unique in some ways in both cases, but he believes when sufficient time has elapsed for the atrophied uterus to recover its function, normal menstruation may occur. In both these cases there has evidently been a revivifying effect on the pelvic organs. Aside from the case reported by Glass, these are the only attempts that have been made to perform heteroplastic transplantation so long a time after removal of the organs. From his personal experience and a review of the literature he concludes as follows:

1. The operation of homo- or hetero-plastic transplantation of the ovaries in women or lower animals is no more dangerous if accomplished aseptically than any other small plastic operation on the appendages. (Morris, Dudley, Fish, Griegorioff, Frank, Arendt, Ribbert, Rubinstein, Glass, Mauclaire, Amico-Roxar, Monprofit, Fos, Knauer.)

2. Homotransplantation of ovaries in women or lower animals will prevent the atrophy of the genitalia which usually follows castration. (Morris, Dudley, Fish, Griegorioff, Knauer, Lukaschewitsch, Fos, McCone, Mauclaire.)

3. Heterotransplantation of ovaries in women or lower animals will prevent the atrophy of the genitalia which usually follows castration. (Glass, McCone, Mauclaire, Schultz.)

4. Transplantation of ovaries from one species into another may result in preventing the ordinary changes in the genitalia resulting from castration. (McCone, Lukaschewitsch, Schultz.)

5. Menstruation will continue in women and monkeys after homoplastic transplantation of ovaries. (Morris, Glass, Dudley, Frank, Mauclaire, Martin, Halban, in monkeys.)

6. Conception has followed homotransplantation in animals. (Griegorioff, McCone, Amico-Roxar, Mauclaire.)

7. Conception has followed heterotransplantation in animals. (McCone, Mauclaire.)

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8. Conception has followed heterotransplantation of the ovaries in women. (Morris, Frank.)
9. Transplanted ovaries in other localities than the normal will maintain their vitality, functionate and prevent the ordinary sequelæ of castration.

54. **Perineal Prostatectomy.**—The operation and its variations for the enlarged prostate are reviewed by Murphy, who concludes that the perineal route gives the best ultimate results and is accompanied with less danger than the suprapubic or Bottini operations. As regards hemorrhage, sepsis, injury to the neighboring parts and danger to life, this operation is the best. The drainage is excellent and it favors rapid restoration of the bladder, while the period of wound repair is much shorter than by the suprapubic route. All his cases had primary union down to the drainage tube. The vesical control is almost uniformly good, and while the sexual power is destroyed, the relief of vesical irritation is great and the frequency of micturition is reduced to about normal.

55. **Elephantiasis.**—Johnstone reports the case of a patient with elephantiasis due to the *Filaria sanguinis hominis* as shown by blood examinations, though the patient had never lived in any region where this parasite is supposed to abound. The disease, she considers, had been acquired from a person suffering from filariasis who lived near her or from some mosquito infected with the bacilli brought from tropical regions in fruit. The inflammation and pain were relieved in this case by Lugol's solution, five drops three times a day.

57. **Hysterical Eye Affections.**—Gradle reviews the various forms of hysterical eye disorders, absolute blindness of one or both eyes being rarest, only about fifty cases being reported, either bi-lateral or mono-lateral. Both of his own cases promptly yielded to suggestion when observed in their incipiency. Hysterical exaggeration of visual imperfections is much more common, and he notices a singular phenomenon, named by Greef "tubular field of vision," in which when there is a contraction of the field of vision the absolute area of the field is the same, no matter at what distance. A double sight of one eye, not accounted for otherwise, is very suggestive of hysteria. Unless there is unequal refraction through different parts of the lens as determined by examination, monocular double sight may be always referred to hysteria. Other hysterical symptoms are pain and disagreeable sensations referred to the eyes, and most frequent of all is persistent winking. It is a mistake to call it chorea. He thinks it is generally a hysterical manifestation. The irregular action of the ciliary muscle is occasionally a troublesome symptom, but its frequency has been overrated. It is more common than true ciliary spasm.

58. **Iodonucleoid.**—Baum describes a new preparation of iodin made by Wesener, that he calls iodonucleoid. It is a reddish-brown granular powder, containing 9.5 per cent. of iodin in organic combination with nuclein, and he reports experience with its use. He has never seen any untoward effects in the 50 cases in which he has employed it, excepting occasionally a slight iodin acne. He thinks the good effects he has observed are due to the retention of iodin in organic combination in the system. It is non-toxic, 488 grains having been given in twenty-four hours, and twice as much iodin is retained and only one-fourth as much given as compared with potassium iodid, as shown by a study of its elimination made in connection with Dr. Wesener. Baum believes that this new organic iodid powder will enable us to give iodin in many cases where other preparations are not tolerated. It will accomplish all that has been claimed for potassium iodid without disordering the stomach or interfering with the general nutrition.

Denver Medical Times.

July.

60 *The Prevention or Amelioration of Vomiting During the Administration of Chloroform. E. Stuver.
61 Homicide Committed While in the Amnesic State. S. D. Hopkins.
62 *The Essential Features of a Practical Medical Registration Law. S. D. Van Meter.
63 Dr. F. J. Bancroft. Edmond J. A. Rogers.

60. **Chloroform Administration.**—Stuver finds that painting the nasal mucous membrane with cocain solution before chloroformization does away with the complication of vomiting which is sometimes so troublesome. He uses a 2 per cent. solution applied on a cotton-wrapped probe ten or fifteen minutes before beginning to give the anesthetic. He thinks it will be equally effective with ether.

62. **Medical Registration Laws.**—Van Meter gives an interesting discussion of the subject of medical registration boards and laws. First the composition of medical boards is considered. He holds that they should be made up of reputable practicing physicians, irrespective of school or pathy, nominated by medical societies and appointed by the governor. The most important of their powers would be the revocation of licenses for other reasons than ignorance or incompetency. As regards examination, he thinks the greatest injustice is done by requiring men eminent in the profession to be examined. He holds that there are points of weakness in the plan and is inclined to think recognition of the medical diploma from a good institution better than examinations. The adoption of a high minimum standard of education for the colleges by the licensing board would be a great improvement. Too little attention is paid to the moral side of the applicant's qualifications; an investigation of former records should be instituted in every case. If laws are to accomplish anything they should be enforcible; there should be no politics in the boards. In conclusion, he emphasizes the importance of a proper wording of the law, especially as regards the definition of the practice of medicine.

Medical Standard, Chicago.

July.

64 Tubercular Laryngitis. Homer M. Thomas.
65 *Treatment of the Secondary Infection of Pulmonary Tuberculosis. John W. Foss.
66 Sunstroke. William F. Waugh.
67 What Constitutes a Cure in Epilepsy? T. C. Wilson.
68 Pain and Its Indications. E. C. Hill.

65. **Tuberculosis.**—Foss finds Hubbert's antistreptococcic serum of the greatest value in combating the secondary effects of pulmonary tuberculosis, and he thinks it is indicated in all forms of streptococcic infection. That it does its work thoroughly, he says, is a fact. In administering the serum he injects 20 c.c. subcutaneously between the shoulders, following daily with 10 c.c. and examines the sputum for streptococci at least every three days, continuing the serum until the streptococci are eliminated, usually after 60 to 120 c.c. have been administered. There is a reaction, sometimes a simple urticaria with itching, sometimes pain and swelling of the joints and nervous phenomena, varying with the amount of toxemia. In acute cases there is little or no reaction, but cases that have been infected for years show greater effects. He would not hesitate to use this serum in much larger quantities if necessary and recommends his confrères to give the substance a thorough trial.

Kansas City Medical Index-Lancet.

July.

69 *A Gigantic Medical Fraud Detected and Exposed. John Punton.
70 Impressions Abroad During a Two Weeks' Sojourn in Spain. J. D. Griffith.
71 *Remedial Faults in the Editorial Work of the Journal. T. D. Crothers.
72 On the Early Use of Solid Food in Artificially-Fed Infants. John W. Kyger.

69. **Malingering.**—Punton reports an interesting case of malingering in a young man 22 years of age who claimed to have been knocked down by the falling door of a freight car and to have become practically idiotic. The case was tried twice and a number of physicians testified as to their belief in regard to his disability. On the second trial, a few months ago, a verdict of $35,000 damages was given by the jury. Dr. Punton was called into the case, and with the chief surgeon of the road, Dr. Cale, alone maintained the opinion that the individual was simulating the disorder. Dr. Punton's opinion was based on the lack of physical evidence of paralysis, loss of sensibility, the condition of the reflexes, etc., which did not agree with the claims made, and he also did not believe in his assumed mental condition. After the second trial a prominent lawyer gave testimony that before the alleged accident the young man and his mother had consulted him as to

the possibilities of getting up such a case, and asked his professional aid. He had refused this to them, but kept the matter to himself until he saw that the case had progressed so far that it did not seem advisable to him to keep silent longer. The judge set aside the verdict and ordered a new trial, turning the patient over to the physicians for further investigation. He was kept in a sanatorium under observation, and his friends were not allowed to see him. On the pretense that he was to undergo a surgical operation for examination of his brain, he was etherized, and in the stage of excitement talked freely. A second experiment was also performed similar to the first, and he finally made a full confession, and is now with his mother under heavy bonds after indictment for attempt to defraud. The outcome of the case thoroughly vindicated Dr. Punton's opinion expressed from the first, and testified to in the trial. The case is of interest, as having aroused considerable attention in the state where it occurred, the amount of damages obtained in the second trial, and especially on account of the success of the impostor in keeping up his imposition so as to deceive so many skilled physicians for so long a time.

71. **Editorial Faults.**—Dr. Crother's paper refers to editorial laxities, etc., in medical journalism generally.

Merck's Archives, New York.

July.

73 *The Treatment of Chorea. (Concluded.) L. Harrison Mettler.
74 Rhus Toxicodendron and Rhus Poisoning. J. M. French.
75 *Summer Diarrhea in Children and Its Treatment. Leo Ratner.
76 An Index of Diseases, Alphabetically Arranged, with Their Modern Treatment. (Continued.) G. Bjorkman.

73. **Chorea.**—Mettler finds that arsenic is a standby in chorea, understanding by this the true Sydenham's chorea, not the multiple affections that have been occasionally described under this name.

75. **Summer Diarrhea of Children.**—The principal points of Ratner's paper are summarized in substance by him as follows: Summer diarrhea is not a difficult disease if common sense is used. The best substitute for mother's milk is properly modified cow's milk. When the stomach is very irritable all food should be withheld for from twelve to thirty-six hours. The first step in medical treatment is to empty the stomach and bowels thoroughly. For this castor oil, plain or in emulsion, is best. The most harmless intestinal astringent for children he holds is tannalbin, and the best antifermentative is ichthalbin, which two drugs are valuable additions to our materia medica. After the bowel has been thoroughly emptied, opium in small, carefully regulated doses is frequently of the highest value. For antipyresis, sponging with cold or lukewarm water should be preferred to any internal medication.

Atlanta Journal-Record of Medicine.

July.

77 *On the Treatment of Internal Strabismus. Dunbar Roy.
78 *Our House and Our Servant. H. McHatton.
79 X-Ray Treatment of Acne. Henry R. Slack.
80 Abdominal Surgery in the Private Residence. Marcus F. Carson.
81 A Nephrectomy, with Remarks. J. G. Earnest.
82 X-Rays in Treatment of Malignant Growths. Marcus F. Carson.

77. **Strabismus.**—Roy's ideas in regard to the treatment of strabismus are orthodox. He believes in operation only as a last resort after other methods, such as glasses, atropia, etc., have been employed. Whatever operative procedure is used should be done with the same care as in any other major surgical operation.

78. **Our House and Our Servant.**—The subject of infection and sanitation of houses is first noticed by McHatton, who gives points from his own experience. The next question which he considers is the servant question, which in the South is a serious one. The deteriorating influences which have acted on the blacks of late years and their habits of life are remarked on. They usually live independent of their masters and mistresses, who, after their work is done, have no control over them. The dangers of communicable diseases are serious. The only escape he sees would be to encourage the servant's remaining in his former relations, living on the premises and allowing an inspection of his physical condition and material welfare. The other alternative would be to make a physician's certificate essential to his employment, having it renewed from time to time.

American Practitioner and News, Louisville, Ky.

June 1 and 15.

83 Marasmus. Philip F. Barbour.
84 Lithemia. Charles Moir.
85 Intestinal Indigestion and Nephritis. H. H. Roberts.

Medical Age, Detroit.

July 10.

86 A Plea for a Broader Interpretation of Specialism. A. Thuner.
87 Neuroparalytic Keratitis. Thomas F. Keller.
88 A Case of Mental Disease Due to Fracture of the Skull, with Paralysis of the Right Facial Nerve, or to Syphilis, or to Both. M. L. Graves.

Northwestern Lancet, Minneapolis.

July 15.

89 The Present Status of Surgery of the Stomach. William J. Mayo.
90 The Circulation of the Internal Genitals Containing Myomata. Byron Robinson.
91 A Review of the Work Done for the Correction of Deformity of the Nose by the Subcutaneous Injection of Paraffin, with a Report of a Case of the Author's. H. McI. Morton.
92 Obstruction of the Bowel Relieved by Inguinal Colostomy. James E. Moore.

Journal of Medicine and Science, Portland, Me.

July.

93 X-Rays in the Treatment of Cancer. E. T. Nealey.

New Yorker Medicinische Monatschrift.

May.

94 Rückblicke auf den 14 Internationalen Medicinischen Congress. W. Freudenthal.
95 *Neue Bestrebungen in der Therapie. Professor Bouchard.

95.—See abstract in THE JOURNAL, xl, p. 545.

Old Dominion Journal of Medicine and Surgery, Richmond, Va.

June.

96 Pulmonary Tuberculosis; Early Diagnosis and Treatment. W. L. Harris.
97 The Sequelæ of Malaria. H. B. Mahood.
98 Preparation of the Woman for Confinement. Lewis Holladay.

Medical and Surgical Monitor, Indianapolis.

July 15.

99 Duodenitis. Simon P. Scherer.
100 Exophthalmic Goiter; Questions and Answers Pertaining to Disease. John E. Lockridge.
101 Rheumatism. I. B. Washburn.
102 Clinical Diagnosis of Cancer of Uterine Cervix. Thomas B. Eastman.
103 A New Treatment for Papilloma. Alfred S. Jaeger.

Colorado Medical Journal, Denver.

April.

104 Colorado Laws Relating to Criminal Abortion. A. B. Seaman.
105 The Attitude of the Profession Toward Abortion. Edmund J. A. Rogers.
106 Remedies for Criminal Abortion. H. G. Wetherill.
107 The Practical Working of the Law Against Criminal Abortion. H. N. Hawkins.
108 Suggested Amendments to the Law Concerning Abortion. Charles R. Brock.

Mobile Medical and Surgical Journal.

June.

109 Our Duty to the Pregnant Woman. E. B. Ward.
110 Some Pathologic Conditions of the Period of Gestation. T. H. Frazer.
111 The Proper Management of Cases of Labor. W. H. Bell.
112 Puerperal Infection. M. S. Davie, Jr.
113 Cystitis in the Female. J. P. Borden.

American Medical Compend, Toledo.

July.

114 The Malpractice Laws of Ohio. W. J. Gillette.
115 Pelvic Hematocele; Cause and Treatment. Joseph F. Fox.
116 The Milk Supply of Toledo, with Demonstrations of Simple Forms of Milk Analysis. L. Marsh Dolloway and Albert Steinfeld.

Vermont Medical Monthly, Burlington.

June 25.

117 The Manic Depressive Psychosis and Some of Its Etiologic and Pathologic Phases. Walter D. Berry.

Journal of Advanced Therapeutics, New York.

July.

118 Some Obstacles to the Progress of Electro-Therapeutics. Charles O. Files.
119 The X-Ray as a Therapeutic Agent. John W. Daniel.
120 The Therapeutic Use of Electrical Currents of High Potential and Frequency. (Continued.) J. Holcomb Burch.
121 The Treatment of Habitual Constipation by Exercise. Watson L. Savage.
122 Undeveloped Psychic Powers. Adelaide R. Kirshner.

The Post-Graduate, New York.

July.

123 Medicine and Surgery in the Philippines. Walter D. Webb.
124 A Review of the Para-typhoid Infections. George E. McLaughlin.
125 A Case of Puerperal Sepsis, Treated with Intravenous Injections of Formalin. George L. Brodhead.
126 On the Use of the Eustachian Catheter. D. B. St. John Roosa.
127 The Need of Better Type in Books for Children to Learn to Read By. Lyle Pickering.

Pacific Medical Journal, San Francisco.

July.

128 Clinical Lecture (Delayed Union of the Upper Third of Femur, etc.). A. W. Morton.

Nash Journal of Medicine and Surgery.

June.

129 Pain as a Diagnostic Factor. John S. Cain.

Detroit Medical Journal.

July.

130 Sixty-seven Years of General Practice, with Some Reminiscences of Giants of the Profession Half a Century Ago. G. B. Russel.
131 Medical Conditions in the Early Forties. Morse Stewart.
132 A Half Century of Professional History. Herman Kiefer.
133 Comments and Additions. Drs. Donald MacLean, Samuel P. Duffield, James Samson, Theodore A. McGraw and G. B. Russel.

Medical Fortnightly, St. Louis.

July 10.

134 Location of a Bullet in the Knee by the X-Ray, and Its Removal. Edwin Walker.
135 Influenza. M. P. Overholser.
136 Extrauterine Gestation; Report of Three Cases. C. E. Ruth.
137 Briefs on Mental Diseases. F. Savary Pearce.
138 Report of a Case of Thoracic Aneurism of Unusual Size. Walter C. G. Kirchner.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

July 11.

1 **The Scottish Medical Corporations and the Public Weal: How They Might Develop a Health Conscience.** T. S. Clouston.
2 *An Account of Eight Cases of "Pressure Pouch" of the Esophagus Removed by Operation. Henry T. Butlin.
3 *The Nature of the Symptoms in Appendicitis. James Mackenzie.
4 *On the Occurrence of Vomiting During Rectal Alimentation. H. D. Rolleston and A. J. Jex-Blake.
5 A Case of Hernia of the Bladder Associated with an Inguinal Hernia. H. J. Curtis.
6 *The Necessity of Shortening Large Nerves When Amputating. Walter G. Spencer.
7 Brachial Neuralgia. Robert M. Simon.
8 History of a Case of Cerebral Tumor Eight and a Half Years After Removal. Thomas Oliver.
9 *The Value of Lumbar Puncture in General Practice. Herbert Rhodes.
10 A New Method of Counting the Corpuscles of the Blood. W. Mersh Strong and C. G. Seligmann.
11 *The Iodoform Treatment of Tuberculous Disease. Middleton Connon.

2. The Pressure Pouch of the Esophagus.—Butlin reports eight cases which indicate to him that this anomaly is by no means so rare as he at first thought. He reviews the symptoms characterizing the condition as published in a former article in 1898, namely, the return of fragments of undigested food at varying periods, even to a day or two after eating; the gurgling up of gas from the throat, particularly when pressure is made on the left side of the neck low down, which is especially distressing to the patient. There may also be a distinct bulging in this situation when food is taken, though this is not a constant symptom. A bougie is arrested about nine inches from the teeth, and if this is of curved metal, it can sometimes be felt through the skin at the posterior triangle of the neck, almost always on the left side. Other symptoms may be present, such as wasting, cough, etc. The operation is not more dangerous to life than a cure will justify. The method was described in his former article. He offers here the following suggestions:

1. In order to be sure that there is no stricture of the esophagus below the opening of the pouch, a bougie should be passed into the stomach from the mouth at the time of operation. If this can not be done before the wound is made in the neck, the pouch should be exposed, separated from the surrounding tissue, and drawn upward out of the wound. Then, with a little manipulation, a bougie can be passed over its mouth.

2. If the pouch is of long standing and of large size, a soft tube should be passed into the mouth and stomach and retained as long as necessary for feeding. If this is impracticable on account of the patient's resistance or otherwise, it should be passed over a guide every time food is taken. Otherwise the food will pass out of the wound in the neck. If this still can not be done, then the tube should be introduced into the stomach through the wound and retained there until healing has nearly finished.

3. The less the tissues below the pouch are disturbed the better, to avoid septic inflammation and so on.

4. No attempt should be made to close the external wound, however carefully the neck of the pouch has been stitched up. It should be drained by means of a soft rubber tube. On the other hand, it is very desirable to close the opening into the esophagus for, although the stitches always give way in three or four days, the surrounding tissues are by this time sufficiently recovered to render spreading septic infection much less probable.

The operation seems to produce a speedy, complete and permanent cure of the disease.

3. Appendicitis.—Mackenzie describes and explains the symptoms of appendicitis according to the distribution of nerves, etc., hyperesthesia, visceral muscle reflex, bladder symptoms, colic, etc. He points out that it may be difficult to differentiate appendicitis from other complaints. The commencing attack has been mistaken for lumbago, rheumatism and other visceral affections.

4. Vomiting During Rectal Feeding.—Rolleston and Jex-Blake report cases which have been observed where vomiting occurred during rectal feeding, and speculate as to its cause. They find a certain proportion, say about 27 per cent., of patients with gastric ulcer vomit when on an exclusive rectal diet. They think in some instances this may be due to oral infection, and in others may possibly be the reflex result of rectal injections.

6. Shortening the Large Nerves in Amputations.—Spencer points out from his notes of cases in the Westminster Hospital that where the practice of drawing out the large nerves and cutting off a piece has been omitted there has been an indefinite delay in the patient's recovery. Continuous pain in the stump prevents the patient from wearing an artificial limb and finally resection of the affected parts is necessary. The whole chronic trouble is connected with the nerves which are left too much exposed.

9. Lumbar Puncture.—The following conditions are enumerated by Rhodes as those in which lumbar puncture may be useful for the patient and practitioner. Each is illustrated by cases. 1. The relief of pain and headache, illustrated by a case of gliosarcoma, where the head pain was unrelieved by drugs. Removal of a couple of ounces of spinal fluid gave complete relief. 2. Coma is diminished. Consciousness may return after coma has been established by the increase of intracerebral pressure. A lumbar puncture may indicate the necessity or otherwise for operation. In several cases of post-basal meningitis, a child apparently dying has been tided over and ultimately recovered when lumbar puncture has been systematically employed, reducing the intracranial pressure. If properly used it may be of value in aiding in the diagnosis. It obviates the necessity of nasal feeding and other tedious nursing procedures. In cases of comatous conditions its relieves the brain symptoms.

11. Iodoform in Tuberculosis.—Connon reports two cases of tuberculous disease of the joints cured by injections of iodoform emulsion, according to Squire's formula. About a dram of emulsion was injected every other day into the joint affected, through the sinus, with an ordinary glass syringe. By keeping the nozzle of the syringe firmly against the sinus opening the emulsion was allowed to act on the joint for three to five minutes. The sinus was subsequently covered with a pad of dry double cyanid gauze, and left untouched until the next injection, two days later. In both cases there was a surprising and immediate lessening of the discharge and improvement of the general health. The pain caused at first was only temporary, and the patients have remained well.

The Lancet, London.

July 11.

12 *The Causes, Prevalence and Control of Pulmonary Tuberculosis. H. Timbrell Bulstrode.
13 The Scottish Medical Corporations and the Public Weal: How They Might Develop a Health Conscience. T. S. Clouston.
14 Observations on Mastication. (To be continued.) Harry Campbell.
15 *The Treatment of Aneurism by Subcutaneous Injection of Gelatin. Guthrie Rankin.

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16 A Case of Richter's Hernia. James W. Fraser.
17 *The Relation of the Dental Profession to Public Health. Arthur Newsholme.
18 A Case of Laryngeal Diphtheria; Tracheotomy; Death Six Weeks Later from Pressure of an Abscess Surrounding the Trachea. William Mair.
19 The Uses of Sodium Salicylate in the Treatment of Malarial Fever. A. D. E. Kennard.
20 Smallpox in the Fetus. Allan Warner.
21 Retention of a Bullet in the Thigh for Two and a Half Years. Seymour F. Gibbs.
22 Arsenical Idiosyncrasy. John Phillips.

12. **Tuberculosis.**—Bulstrode notices the theories of infection and the exaggerated popular ideas in regard to it. He considers tuberculosis only slightly communicable, and quotes sanitarium experiences. The frequent non-recognition of tuberculosis is also noted. He says, think of the revelation of the general application of the tuberculin tests. Statistics are given showing the relation of poverty to tuberculosis and the comparative slight incidence among the well-to-do. The relation of alcohol to the disorder is considered at some length; that there is an association would seem from the evidence conclusive. He thinks, however, that many of the alcoholic tuberculous cases are primarily predisposed by constitution. In insanity a very large proportion of the patients die from tuberculosis, particularly those within institutions. He thinks more attention should be paid to increase resistance and improve the condition.

15. **Gelatin in Aneurism.**—Four cases are reported by Rankin. He says that while the experience of so small a number is not enough for drawing conclusions, it shows that gelatin injections may with proper precautions be given subcutaneously with safety. They produce a marked and speedy decrease in all of the subjective and some of the objective symptoms of internal aneurism. This relief is only explainable on the theory of diminution of pressure effects by shrinkage in the aneurismal sac. This diminution in size accompanied with marked increase in the resistance of the tumor wall could be distinctly determined in three of the cases treated. The after histories of the patients so far as they can be obtained show that the beneficial results are permanent.

17. **Dental Hygiene.**—The importance of dental health to the community is shown by Newsholme, who gives figures showing the increased number of rejected recruits in England on account of defective teeth, also the statistics as regards the prevalence of dental caries in the different races at different periods. It is evidently much more common in civilized than in uncivilized states. While he questions and reserves opinion in regard to many of the alleged causes, he says the most important preventive measures are: 1. The teaching of hygiene should be compulsory in the senior classes of all elementary schools and the hygiene of the mouth be an important part of the subject. 2. The enforcement of daily cleansing of the teeth should be organized in all residential schools. 3. The medical profession can stimulate dental reform by examining the teeth of all children attended by them and inculcate the importance of regular cleansing and early attention to caries. 4. Every industrial and other school authority should employ a dentist to treat the teeth of children and organize methods of dental hygiene.

The Practitioner, London.

July.

23 *Introductory Essay. T. Clifford Allbutt.
24 *The Occurrence of Gout in the United States. Thomas B. Futcher.
25 *Gout in the Tropics. Alexander Crombie.
26 *Gout as It Occurs Among the Poor. F. S. Toogood.
27 *On the Relation of Gout to Granular Kidney and to Lead Poisoning. Samuel West.
28 *The Causation, Prevention and Treatment of Gout. Alexander Haig.
29 *Metabolism in Gout, and the Need for Combined Investigation. I. Walker Hall.
30 *Notes Respecting the Dietary for Goutily-Disposed Persons. Dyce Duckworth.
31 *The Treatment of Gout in Its Various Forms. Arthur P. Luff.
32 *Balneologic Treatment of Gout, with Special Reference to Bath. Gilbert A. Bannatyne.

23 *et seq.* **Gout.**—This issue of the *Practitioner* is devoted to a symposium on gout, which is introduced by an essay by Dr. Allbutt, who summarizes in a general way the papers that follow.

24.—Futcher gives his views as to the occurrence of gout in the United States, where he thinks it is often unrecognized.

25.—Crombie points out the lessened occurrence of gout in the tropics, which he explains by a lowered tissue metabolism required to raise the temperature of the body to a smaller number of degrees and in natives to the less nutritious nature of their diet.

26.—Gout as it occurs among the poor is treated of by Toogood, who attributes it principally to beer drinking.

27.—The relation of gout to granular kidney is discussed by West, who thinks that, like lead, it may produce chronic changes in the kidney, but does not cause interstitial nephritis. The presence of a granular kidney, however, greatly increases the liability of the patient to gout on the one hand and lead poisoning on the other, or both together; likewise greatly increasing the gravity and risk.

28.—Haig reiterates his views as to the importance of diet in gout, which he considers is but a symptom of poisoning by flesh and tea.

29.—Hall's paper is on the metabolism of gout. He believes in repeated purin determinations in each case and holds that if the exogenous or endogenous purins are delayed or retained in the system, their dilution in the tissues by large quantities of water or harmless fluids offers the best assistance to the renal cells for effective excretion.

30.—The diet in gout is treated of by Duckworth, who considers it a matter of individual study in every case. Slight causes of any kind will excite the disease in those predisposed to it.

31 and 32.—Luff and Bannatyne end the series with articles on the treatment of gout and its balneologic management.

Journal of Tropical Medicine, London.

July 1.

33 *Sleeping Sickness in the Light of Recent Knowledge. Louis W. Sambon.
34 *The Dengue: A Study of Its Pathology and Mode of Propagation. H. Graham.

33. **Sleeping Sickness.**—Sambon notes the spread of sleeping sickness and its possible extension into other races than the negro. He notes its symptoms and reviews the theories of its origin, including the later discovery of Castellani of the trypanosoma, the causative theory of which he thinks is somewhat favored by facts.

34. **Dengue.**—See editorial in THE JOURNAL, July 25, p. 264.

Annales de Dermatologie et de Syph., Paris.

Last indexed XL, page 1103.

35 (IV, 4.) Contribution à l'étude de l'hydrocystome (avec une note sur la granulose rubra nasi). A. Lebet (Jadassohn's clinic, Berne).
36 Summer Desquamation of the Palms. A. Carayon (Bordeaux). —Desquamation estivale en nires des mains.
37 (No. 5.) Dyskératoses congénitales et leurs associations morbides. E. Lenglet.
38 Chelolde du lobule de l'oreille. Son origine infectieuse. Récidive apres ablation cirurgicale. Guérison par l'électrolyse bipolaire. L. Perrin.
39 (No. 6.) Étude clinique et histologique sur 6 cas de syphilides papillaires peripilaires simulant le lichen scrofulosorum et la kératose pilaire. G. Jonitescu. Colored plates.
40 De l'association du lichen chronique circonscrit et du lichen simplex aigu disseminé. C. Audry.

Archives de Neurologie, Paris.

Last indexed XL, page 1175.

41 (XIV, April.) Sur quelques particularités cliniques de la névralgie faciale et son traitement par l'electricité. A. Zimmern. (Commenced in March number.)
42 Fibromatose et paralysie générale. A. Cullerre.

Deutsche Med. Wochenschrift, Berlin and Leipsic.

43 (XXIX, 22.) *Pseudo-Hemisystolie und postmortale Hemisystolie. H. E. Hering (Prague).
44 Ueber ein für menschliche Placenta spezifisches Serum. W. Liepmann.
45 *Combined Tuberculin Treatment of Tuberculosis. J. Mitulesco (Bucharest).—Die Vortheile der combinirten Behandlung bei der chronischen Tub. (Commenced in No. 21.)
46 *Giant Growth. J. Wieting.—Zur Frage des allgemeinen Riesenwuchs. (Commenced in No. 21.)
47 New Vaccine Holder. Grimm (Tirschtiegel).—Neuer Lymphbehälter.
48 (No. 23.) *Ueber Tumoren und Pseudotumoren in der Adduktor-Gegend. V. Czerny (Heidelberg).
49 *Resection of Lower Jaw. Tilmann (Greifswald).—Ueber Unterkieferresektionen.

50 Zur Pathologie des Wurmfortsatzes (appendix). H. Ribbert (Göttingen).
51 Zur Frage vom Mechanismus der Darm-Strangulation. J. Kertesz (Budapest).
52 *Unblutige Behandlung der Dupuytren'sche Finger-Contractur. P. Lengemann.
53 Negative Tests of Tincture of Soap and Certain Other Disinfectants. Schumburg.—Bemerkungen zu der Wirkung des Seifenspiritus als Desinficienz medizinischer Instrumente.
54 *Eye Operations in Ancient Babylonia. H. Magnus (Breslau).—Zur Kenntnius der im Gesetzbuche des Hammurabi erwähnten Augenoperationen.
55 (No. 24.) *Human Sweat. L. Brieger.—Untersuchungen über den menschlichen Schweiss. II. Schwitzen bei verschiedenen Schwitz-Procedures.
56 *Latest Methods of Operating on Incurable Vesicovaginal Fistulæ. E. Rose (Berlin).—Die neueste Op.-Methoden unheilbarer Blasenscheidenfisteln.
57 Differential Diagnosis of Affections of Esophagus and Stomach. H. Elsner (Boas' clinic, Berlin).—Kasuistischer Beitrag zur Diff.-Diagnose von Erkrankungen der Speiseröhre und des Magens.
58 Advantages of Anesthol for Making Frozen Sections. R. Katz (Abel's clinic, Berlin).—Die Anfertigung von Gefrierschnitten zur mikroskopischen Diagnose mit Anästhol.
59 Zur Aetiologie der Spalthand (split hand). M. David.
60 *The New Service for Cancer Research.—Die neue Abtheilung für Krebsforschung der I. medizinischen Klinik in der Charité zu Berlin.

43. Pseudo-Hemisystolia and Post-Mortal Hemisystolia.—Hering presents arguments to prove that hemisystolia is a disturbance in the heart action which occurs only during dissolution and is absolutely incompatible with life. Two forms of hemisystolia may be observed in studying the hearts of animals, one ventricle continues to pulsate while the other has stopped beating; or one ventricle beats less frequently than the other. The first form is a phenomenon of commencing death, and is only observed in such circumstances. The other has never been observed by direct inspection except in the dying heart, and both the anatomy and physiology of the heart are against its occurrence except as an agonal phenomenon. He emphasizes the words "by direct inspection," as graphic tracings are unreliable in this respect, as has been proven in his Institute for Experimental Pathology. On the other hand, he claims that the bigeminal beat (Herzbigeminie), frequently deceptively simulates hemisystolia, and the clinical cases in which the latter has been assumed were in fact cases of Herzbigeminie. They might be classed as a pseudo-hemisystolia, but the terms hemisystolia and systolia alternans should be discarded from clinical terminology. The former is not a clinical phenomenon, and the latter has no existence in fact. He adds that the results of experimental research on the heart can be applied without hesitancy to man, as the anatomy and physiology of this organ is essentially the same in all mammals.

45. Combined Tuberculin Treatment of Tuberculosis.—Mitelescu lauds the advantages of combining hygienic and dietetic measures with the use of tuberculin, and shows by study of the metabolism that much more satisfactory gains are made with the latter than without it. He warns against febrile reactions, and insists on the necessity for small, but long-continued doses. He believes that as the tuberculin is a powerful stimulant for the cells it is indicated only in cases in which the cells are still capable of responding to a stimulus, therefore, only in the early stages of tuberculosis. By stimulating the cells to produce the specific substance and giving them abundant nourishment, they gain the upper hand in the struggle, which can be recognized by the retention of nitrogen. If too much tuberculin is given or if the cells have too little vitality to respond to the stimulus, the tuberculin merely aggravates the morbid condition of the cells, which likewise can be recognized by increased disassimilation. He tabulates the findings in several cases to illustrate his views, and cites statistics to confirm the efficacy of this combined treatment.

46. Giant Growth.—Wieting suggests that the connection between the testicles and the bone growth may be indirect. When the organism comes to maturity, the bone growth is arrested. If the sexual apparatus does not attain its normal maturity at the proper time, the bone growth continues unregulated until it dies out from exhaustion. This would explain the persistence of the epiphyses in eunuchs and the non-arrest of their skeleton development at the age corresponding to puberty in normal individuals. This would also explain a case of giant growth which Wieting reports in detail in a young Asia Minor giant of syphilitic heredity. The latter was probably responsible for the atrophy of the testicles observed, and the lack of the regulating influence from the testicles was possibly responsible for the excessive growth which commenced at about the age of puberty. The man stood 215 cm. tall, but, being somewhat stooped, he measured 225 cm. long (almost 9 feet).

48. Tumors in Adductor Region.—As an aid in differentiating these tumors Czerny describes the case of a forester who had articular rheumatism of the toes, extending to hip on same side and followed by a tumor in the adductor region which proved to be tuberculous osteomyelitis of the pubis with infiltration of the vicinity. The participation of the neighboring joint simulated a coxitis. Adolph has recently reported a similar case only with staphylococci instead of tubercle bacilli as the causal agents.

49. Resection of Jaw.—Tilmann extols the advantages of the Schroder Stoppany method of handling cases in which resection of the jaw is needed. A model of the jaw is made out of sheet aluminum, and, when the jaw is resected, the corresponding part of the model is resected and inserted in the place of the missing bone. This enables the wounds to heal without shrinking of the parts, and this temporary prothesis can be substituted by the permanent hard rubber prothesis at any time. Tilmann has thus operated on two cases and recommends that models of the jaw in three sizes should be kept constantly on hand.

52. Bloodless Treatment of Dupuytren's Contraction.—Lengemann reports from Mikulicz's clinic three cases cured or improved by daily local injections of 1 c.c. of a solution of 2 gm. thiosinamin in 4 gm. glycerin and 14 gm. distilled water. After the twentieth day the injections were continued once a week until 28 had been given in one case. The action of the thiosinamin was reinforced by warm baths, massage and passive movements.

54. Babylonian Eye Operations.—THE JOURNAL for May 30, page 1545, in a description of the Hammurabi code of laws, which date from Abraham's day, reproduced the cut of the surgeon's seal found in the excavations in Babylonia. The seal bears a representation of the instrument used in the operations on the eye to which the code refers. The abstract referred to above was of an article by Oefele, who is a student of the cuneiform language. Winckler translates the cuneiform text somewhat differently in his recently published work on the "Laws of Hammurabi" in *Der alte Orient*, 1903, 4. The word which Oefele translates cataract he calls tumor, cavity, fissure, and the instrument which Oefele entitles "scorpion awl" he translates "operating knife." Professor Magnus of Breslau has been studying the subject from the standpoint of comparative philology as well as of ophthalmology, and concludes that the operation in question was merely the ancient paracentesis first described by Celsus in the first century after Christ. In the same way as the Ancient Greek and Roman operators, the Babylonian surgeon unwittingly pushed the opaque lens to one side in operating to evacuate a supposed pathologic effusion. Oefele was therefore correct in calling the operation the removal of a cataract. It was in fact a depressio or reclinatio lentis, but none of the ancient operators were aware of this. The Assyrian-Babylonians, the Greeks and the Romans, and later the Arabians and others down to the close of the sixteenth century, all supposed that what they accomplished by their operation was merely the evacuation of a pathologic product. The severe penalty imposed by the Hammurabi code for loss of the eye, as mentioned on page 1545, must have caused the surgeons of those days to refrain from performing the operation very often. The code does not describe the technic or after-treatment, but Oefele has discovered a letter from a surgeon of the time of Sardanapalus, named Aradnana, which mentions that a wound in the cornea will heal under a plaster bandage in seven or eight days. We may assume, therefore, that the Babylonian surgeons conducted the after-treatment of these operations along this line. The excavations at Susa have demonstrated that the Greeks and Romans owed their knowledge of humoral pathology to the Assyrian Babylonians, and that it did not originate with Celsus as heretofore supposed.

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55. Study of the Sweat During Diaphoresis.—**Brieger** tabulates the results of determination of the freezing-point of the sweat during different sweating procedures.

56. Treatment of Incurable Vesicovaginal Fistulae.—Rose sutures the vulva, closing it entirely, and diverts the urine and menstrual discharge through a large opening from the vagina into the rectum above the sphincter internus. The vagina tolerates the urine and the bladder the admixture of the menstrual discharge without trouble. His first patient, after complete recovery and with the rectal urethra working well, died with symptoms of uremia and lesions of tuberculosis were found in lungs and kidneys. The patient in his second case also died, not long after the successful operation, from extension of the carcinomatous lesions on account of which it had been undertaken. His third patient had been subjected to various operations during several years for a vesicovaginal fistula consecutive to rupture of the bladder, and was finally dismissed by the surgeons as incurable before she came under his care. He established the rectal urethra in four operations, and the patient for nineteen years since has been in good health, serving as maid of all work, the rectal urethra functioning perfectly. She writes that she has never had pains in the sacral region nor swelling of the feet. She urinates usually twice in the night, and menstruation never caused any disturbance. During all these years she has been perfectly well, except for a transient gastrointestinal catarrh at one time and tonsillitis at another. The rectal urethra functioned perfectly in all these three cases and constipation was the rule, never diarrhea. The autopsy in two cases also showed that the rectum was apparently normal, no ulcerations either in the rectum or bladder and merely a slaty discoloration of the rectal walls. He criticises Howard Kelly's method of operating on these fistulæ as a more serious operation. In regard to the abolishment of the sexual life by his method, he states that his three patients were glad to be freed from the danger of possible conception in their condition. He asserts that in America the tendency seems to be to still further perfect the technic of vesicovaginal operations, while in Germany the tendency is rather to perfect obstetric methods so that rupture of the bladder and fistulæ will no longer occur. He remarks that it is a peculiar feature of these operations in America that they are so often undertaken after gynecologic operations, especially after hysterectomy on account of carcinoma. When the uterus has been completely removed, the possibility of the loss of sexual intercourse is of much less importance. He explicitly warns against coitus for a year at least after any operation for even the simplest vesicovaginal fistula. He has witnessed a perforation that occurred in the course of a digital exploration by a professor of obstetrics in a recently-healed case of a fistula of this kind.

60. Cancer Research.—For ten years von Leyden has been conducting researches on cancer, and the authorities have now provided him with increased facilities for the work by erecting three "barracks" on the ground of the Charité Hospital, supplementary to the first medical clinic of which he has charge. One of the buildings is arranged for a laboratory and the others are wards with accommodations for twenty patients, but only such will be admitted as are past surgical aid. Von Leyden has long been a partisan of the parasitic nature of cancer, accepting the "cell inclusions" as the parasites. Richet and Héricourt, in 1895, were the first to announce that they had had encouraging results from treatment of cancer patients with the blood of dogs, asses and horses previously injected with an aqueous extract of cancer tissue. Jensen in 1901 reported that he had succeeded in curing cancer in mice by injection of blood from rabbits previously injected with cancer extract. He also succeeded in cultivating cancer by reinoculation through eight generations of mice. Similar experiments had been undertaken by von Leyden and Blumenthal on dogs with positive results, and they had applied the same curative measures to man. Several goats were treated for months with injections of carcinoma from the uterus, liver, mamma, etc., each animal receiving only one variety of cancer. After months of this preliminary treatment, the blood of the uterus-carcinoma goat was used for the treatment of a case of uterine cancer, and of the mammary-cancer goat for treatment of mammary cancer, and so on. These experiences of Jensen and von Leyden were duly chronicled in THE JOURNAL at the time they were published. The results were not conclusive but encouraging. The experiments of the latter were the first systematic attempts to differentiate the various kinds of carcinoma and to apply in treatment the laws of cytolysis and autolysis. Jensen also emphasized the necessity of differentiating the variety of tumor, although his researches were conducted with only one kind, adenocarcinoma, and only on mice. Von Leyden and Blumenthal have also been experimenting with crushed tumor cells on the principle of the tuberculin treatment of tuberculosis, always carefully differentiating the variety of the tumor. They believe that the still unaffected parts of the organism elaborate specific substances in response to the stimulus of the tumor substance, which on the one hand check the growth of the carcinomatous degenerated pavement and columnar epithelium, and on the other hand, produce substances which are able to dissolve the carcinoma cells. Control experiments with intact pavement and columnar epithelium from non-cancerous organs have not displayed any positive therapeutic influence to date. There is thus a marked difference between the results attained by injection with crushed tumor cells and injection of the corresponding intact, non-carcinomatous crushed epithelial cells. A third line of cancer research has been conducted in the clinic, the purely chemical study of the metabolism of cancer subjects. The results up to last year were published by Blumenthal in the *Klinisches Jahrbuch*. All this research is being actively prosecuted now on a larger scale.

Wiener Klin. Wochenschrift, Vienna.

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61 (XVI, 17.) •Ueber hereditären Ikterus. A. Pick.
62 Fall von Kopf-Tetanus mit Hypoglossus-Parese geheilt nach Dural-Infusion von Behring'schem Antitoxin. A. Holub.
63 (No. 18.) •Die Syphilis der Mütter und Neonatorum. Beitrag zur Lehre der hereditären Syphilis. F. Mracek.
64 •Zur Theorie der paroxysmalen Hemoglobinurie. R. Kretz.
65 Ueber Spontan-Fraktur der Blasensteine (urinary calculi). G. Kapsammer.
66 (No. 19.) Influence of Digitalis on Respiration in Heart Disease. L. Hofbeuer.—Einfluss der Digitalis auf die Respiration des Herzkranken.
67 Transformations in Modern Surgery. von Elselsberg.—Wandlungen in der modernen Chirurgie.
68 •Beitrag zur Lehre von der "Anemia perniciosa progressiva idiopathica." A. Kroklewicz.
69 (No. 20.) Intertransmissibility of Tuberculosis for Various Animals. E. Wiener.—Zur Uebertragbarkeit der Tub. auf verschiedene Tierarten.
70 •Tests of Smoke of Drugs Used in Treatment of Asthma. F. Netoltzky.—Rauchversuche mit einigen Asthmamitteln.
71 Zur Pathogenelität des Bacillus proteus vulgaris (Hauser). E. Haim.
72 Zur Klinik der Nieren-Tumoren, speziell der malignen Hypernephrome. E. Bohler (Neusser's clinic, Vienna).
73 Description of Institute for Experimental Medicine at St. Petersburg. C. J. Rothberger.—Das Institut, etc.
74 (No. 21.) Herpes tonsurans. M. Schein (Budapest).—Ueber die Etiologie der Glatze.
75 Das Lepra-Asyl Matunga in Bombay. M. Oppenheim (Neumann's clinic, Vienna).
76 Cholelithiasis mit Glykosurie. F. Ehler (Brünn).
77 Phimosen-Dilatator. R. Matzenauer (Vienna).
78 (No. 22.) Obituary of Karl Langer von Edenberg.
79 Zur Physiologie der willkürlichen Bewegungen (voluntary movements). E. Zuckerkandl and S. Erben.—Study of Knee Movements.
80 •Zur operativen Therapie bedrohlicher Blutungen (of threatening hemorrhage) nach Tonsillotomie. O. Burkardt.
81 •Physostigmin gegen gefahrdrohenden Meteorism (namentlich nach Operationen). L. Moszkowicz.
82 (No. 23.) •Results of Serum Treatment of Scarlet Fever. T. Escherich.—Die Erfolge der Serumbehandlung des Scharlach an der Universitäts Kinderklinik in Wien.
83 •Hitherto Disregarded Sign of Rachitis. R. Neurath.—Ueber ein bisher nicht gewürdigtes Symptom der Rhachitis.
84 (No. 24.) The Conception: "Albuminoids." T. Panzer.—Der Begriff: "Eiweedkörper."
85 Influencing of Agglutinins by Specific Absorptions. A. Posselt and R. R. v. Sagasser (Innsbruck).—Ueber Beeinflussung der Agglutinine durch spec. Absorptionen, nebst Bemerkungen über den Werth der Serodiagnostik bei Typhus und Dysenterie.
86 •Cell Division Under X-Rays. G. Schwarz.—Zelltellung und Rontgenstrahlen.
87 Ueber Dr. Bullings Inhalations-Verfahren. von Schrötter.
88 •Ueber Yohimbin (Spiegel) als Anesthetieum. A. Strubell (Dresden).
89 (No. 25.) Regurgitation of Bladder Content. H. Marcus.—Experimentelle Untersuchungen über das Rückströmen von Harnblaseninhalt.
90 •Zur Roentgen-Behandlung von Tumoren. A. Exner (Gussenbauer's clinic, Vienna).
91 Zur Aetiologie des "schnellenden Fingers" (trigger finger). E. Payr (Graz).

92 *Phosphorescence-Producing Properties of Radium. G. Holzknecht and G. Schwarz.—Ueber Radiumstrahlen.
93 (No. 26.) *Zur Theorie der Inkubations-Zeit. Clemens v. Pirquet and B. Schick.
94 Zur Meningitis cerebrospinalis suppurativa. J. Donath (Budapest).
95 Ueber Bakterien-Befunde in der normalen männlichen Urethra und den "Syphilis-Bacillus" Max Josephs. H. Pfeiffer.
96 Yeast and Formalin in Gynecology. M. Popescul.—Ueber einige neuere Heilmittel in der Gynaekologie.
97 Forceps at the Chrobak Obstetric Clinic. R. Sachs.—Bericht über die Zangen-Operationen der Klinik Chrobak in den letzten 10 Jahren. (Commenced in No. 25.)
98 (No. 27.) Zu Riedel and Kehrs Ansichten über Pathologie und Therapie des Gallensteinleidens (of biliary lithiasis). F. Fink (Carlsbad).
99 Gruber-Widal Serum-Reaktion bei Ikterus. L. Langstein.
100 Neue Früchte der Ehrlich'schen Toxin-Lehre. M. Gruber.
101 *Radium Treatment of Malignant Tumors and of Cutaneous Affections. A. A. Exner.—Radiumstrahlung.
102 *Radium Treatment of Cutaneous Affections. G. Holzknecht.—Wirkung der Radiumstrahlung auf Hautkrankheiten.
104 *Blastomycosis. Brandweiner.

61. **Hereditary Icterus.**—Pick describes a family in which the mother and three of the children exhibited icterus. He attributes it to some congenital communication between the lymphatic and biliary passages or to some congenital insufficiency of the liver cells, entailing paracholia. In conclusion, he reviews the German and English literature on the subject.

63. **Syphilis in the Mothers and Newborn.**—Mracek analyzes his experience with syphilis in the newborn with a profusion of details. He has become convinced that the earlier the fetus is infected the more serious the results. Neither the age nor the form of the maternal syphilis allows any positive dictum as to the outcome of the pregnancy. In 11 cases of non-proven syphilis on the part of the mother (and thus possibly paternal infection), the placenta was found pathologic in 9 instances. This fact is not a decisive argument in regard to the mode of paternal transmission, but is certainly worthy of attention. The protracted infecting power of the mother and its deleterious influence on the offspring impose energetic treatment of every pregnant woman, even when the syphilis is latent. He urges for collection of data in regard to cases of syphilitic mothers who have borne healthy children and also in regard to early abortions. The article is a valuable contribution to the pathologic anatomy and the clinic of hereditary syphilis, for which Mracek has been collecting material for twenty years. In 11 of the cases with early abortion or maceration of the fetus, not a trace of syphilis could be detected in the mother. In 22 others with syphilis probable but not certain, not a single child survived to term, as was also the case in 24 instances in which infection and conception occurred simultaneously, and likewise in 22 in which infection occurred shortly before conception. He tabulates these and various other groups, and discusses the alternating births of syphilitic mothers, the heredity of inveterate syphilis, and numerous other questions. His experience establishes that the virulence does not become attenuated with time, and that even in the latest gummatous stage the mothers may bear children virulently infected.

64. **Paroxysmal Hemoglobinuria.**—Kretz explains this condition on the principle of amboceptors and complements in the blood. The attack of hemoglobinuria, he suggests, may be due to an accumulation of the complement under certain influences in an individual already unduly loaded with amboceptors. The result is hemolysis with consecutive hemoglobinuria.

68. **Idiopathic Pernicious Anemia.**—In the case reported the patient, a man of 32, had been healthy until a gastrointestinal affection developed, followed in three months by signs of progressive and speedily fatal anemia. At the autopsy nothing pathologic could be found except in the alimentary canal. Krokiewicz ascribes the disease in this case to constant absorption of enterotoxins, first taken up in the portal vein and passing thence into the general circulation. He does not attempt to decide whether the destruction of the erythrocytes was due to the direct action of the absorbed intestinal toxins on the blood cells or whether there might not have been some special affinity between the toxins and the potash in the cells. During the fifty days in the hospital the blood never exhibited the picture of essential progressive pernicious anemia, no normoblasts nor megaloblasts, but only moderate poikylocytosis, modification of the stainability of the red corpuscles and a low proportion of hemoglobin corresponding to the diminishing numbers of reds which were at first 460,000 with 25 per cent. hemoglobin, and towards the last 240,000 with 9 per cent. hemoglobin. The leucocytes numbered 6,000 to 1,600, but behaved normally in every respect. Only Quincke and Grawitz have reported smaller proportions of red corpuscles, 142,000 and 200,000.

70. **Tests of Smoke of Asthma Remedies.**—Netolitzky has been experimenting with and analyzing the smoke of belladonna, hyoscyamus, *Datura stramonium* and *Lobelia inflata*, as remedies for asthma, in the form of cigars, cigarettes or smoked in a pipe. He was able to demonstrate both chemically and still more positively by directing a stream of the smoke on the eyes of rabbits, that the essential principle does pass into the smoke. The results were only faintly positive with the *Hyoscyamus niger*, and were puzzling with belladonna, but with the stramonium and the lobelia the effect on the rabbits' eyes was unmistakable.

80. **Operative Treatment of Hemorrhage After Tonsillotomy.**—Burkard cites the various methods of arresting threatening hemorrhage in these circumstances and describes in detail that practiced by the late Professor Nicoladoni. In the rare cases in which all other measures proved ineffectual he made an incision in the neck, commencing about 1 cm. below the ear and proceeding as if to remove a neoplasm in the tonsil, the lower jaw drawn up and the stump of the tonsil presented in the incision by pressure through the mouth. The tonsillar vessels are ligated, but the large vessels behind need not be touched. The styloglossus must be drawn up out of the way or severed. The tonsil lies directly in front of the insertion of the fibers of the stylopharyngeus in the swallowing musculature. The bleeding is carefully staunched, the pharynx opened, the stump of the tonsil extirpated and the pharynx closed immediately by suturing together the pillars of the fauces either through the incision or through the mouth. This intervention is more tedious and complicated than ligature of the carotid, but by observing the directions in detail, it can be rapidly done and is a much less serious operation than ligating the carotid, while it ensures arrest of the hemorrhage with much greater certainty.

81. **Physostigmin in Post-Operative Meteorism.**—Moszkowicz has found this drug magical in the relief of post-operative paralytic ileus. His experience includes five cases. He expatiates on the dangers of this pseudo-ileus which is one cause of death after laparotomies, and has also been observed after herniotomy and vaginal operations. The autopsy discloses that the peritoneum is intact and that the trouble is evidently the result of a vicious circle, venous hyperemia, edema of the intestinal wall, paralysis of the intestinal musculature, meteorism and disturbances in absorption. This vicious circle can be broken up by physostigmin. In his experience a subcutaneous injection of .001 gm. of the physostigmin salicylate was well tolerated by 3 extremely debilitated patients. In the 2 other cases this amount was given in two doses. The extreme distension of the intestines was promptly relieved, and in 2 of the cases the measure was life saving. No disagreeable by-effects were noted in any organs. The blood pressure was distinctly increased, the drug acting on the heart action like camphor.

82. **Serum Treatment of Scarlet Fever.**—This communication was presented at the Madrid Congress and the nine diagrams give an oversight of the effects of the treatment in the 112 cases in which it was applied. None of the children died that were injected on the first and second day of the disease, although there were 8 very severe cases in the 24 injected the second day. Only 17.4 per cent. died of the 23 injected the fourth day, and 30 per cent. of those injected the fifth day, after which the mortality rose to 50 per cent. of the 4 not injected until the ninth day, the latter all very severe cases. A single, large injection the first or second day affords the best results.

83. **Sign of Rachitis.**—Neurath gives a photograph of a chubby hand in which the fingers show marked deformity of

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the bones, the phalanges appearing to be swollen, giving the fingers a spindle-shaped appearance between the joints. He has observed it only in rachitic children, and usually in those under a year old. When noted in older children the rachitis is always in a severe form. He was never able to discover the lesion in non-rachitic children or in those only slightly affected. It was always accompanied by enlargement of the epiphyses and ends of the ribs. He found that he could diagnose rachitis in children before examining them elsewhere, by merely feeling for the spindle-shaped enlargement of the phalanges. It subsided under "phosphorus cod-liver oil" in conjunction with the other symptoms of the rachitis.

86. **Cell-Division Under the Roentgen Rays.**—G. Schwarz of Vienna reported at the local medical society that he had been studying the influence of the *x*-rays on living sea urchin's eggs. In no instance was it possible to detect any inhibiting action on the part of the rays on the normal cell division. These and similar researches on other animal tissue have convinced him that the inhibiting influence of the rays which Lopriores has established in respect to plant cells, does not exist in respect to animal cells. The influence of the rays on tumors, therefore, can not be explained on this assumption. He thinks the action of the rays may possibly be explained by assuming that they render certain substances, especially albumin, insoluble. The phenomena observed with the *x*-rays, Finsen light treatment and exposure to the sun for hours on a glaring snow field, may all be of the same nature, i. e., the rendering insoluble of certain metabolic products in the cells whose further elaboration and elimination are thus hindered. This stoppage gives rise to the chronic affection following a period of incubation which we designate as solar erythem and Finsen and Roentgen dermatitis. The sea urchin's eggs were exposed to *x*-rays which blackened a photographic plate under the same conditions in less than a minute.

88. **Yohimbin as an Anesthetic.**—A recent death at Vienna after the use of cocain causes surgeons to be specially interested in the newly-discovered anesthetic properties of yohimbin. Strubell found that the local application of a 1 per cent. solution induced undoubted hypesthesia to anesthesia in the upper air passages, amply sufficient for operations that did not go very deep into the tissues. This application is absolutely harmless and does not blanch the tissues, but induces a moderate hyperemia without contraction of the tissues or severe primary hemorrhage at the time or later. He suggests that its combination with adrenalin might prove especially advantageous for rhino-laryngologic work.

90. **Roentgen Treatment of Tumors.**—Exner reports 3 cases of inoperable mammary cancer unmistakably benefited by the *x*-rays. In one case the lesion apparently healed. In a case of melano-sarcoma the cutaneous metastases were treated by the *x*-rays and many of them subsided under their influence.

92. **Phosphorescent Power of Radium Rays.**—It has been asserted that totally blind persons are able to see the radium light. They not only perceived the phosphorescent radium screen, but were able to distinguish the silhouettes of coins, keys, etc., placed on the screen, the same as a seeing person. Holzknecht and Schwarz think these facts can be explained in two ways: Either the radium rays passing through the tissues reach and irritate the optic nerve and stimulate the relics of vision left in it—in which case the sound eye would also experience the same tendency, and the blind person, after a little practice, might be able to perceive any dark object on a bright background. Tests in this direction have already been made, and Heller reported two years ago that it is possible to save some degree of vision by exercises of this nature. The same results can be attained with any light, and the radium has nothing specific to do with the phenomenon. It was observed with the Roentgen rays and interpreted in the same erroneous manner at first. The other, and the correct explanation, they believe, is that the phenomenon is due to the transformation of the energy of the radium rays into objective phosphorescence. This power of inducing phosphorescence in other bodies is possessed by the radium rays to a remarkable extent. No screen nor chemical is required; any animal tissue whatever, hairs, bone, muscle, a drop of water, a scrap of sugar, but especially the human epidermis, are rendered more or less vividly phosphorescent under the action of the radium rays. They believe that no one else has called attention to this property of radium. This explanation of the vision induced in the blind by radium is confirmed by the localization of the phenomenon. When the radium is applied to the right, the visual sensation is on the right side, applied to the left, above or below, it is respectively on the left or above or below to correspond. The radium rays evidently render the sclerotic phosphorescent, and this phosphorescence is seen by the point of the retina opposite to it. When a visual sensation is experienced from compression of the eyeball, the source of the light is referred to the point opposite that from which the light compression proceeds. This is directly the reverse of what is experienced from the radium.

93. **Theory of the Period of Incubation.**—Pirquet and Schick relate clinical and experimental researches which demonstrate that an organism reacts more promptly to a renewed infection or intoxication than it did the first or previous times. That is to say, the incubation period is shorter. They theorize from this fact that the pathogenic substance has *per se* no power to induce the consecutive sickness. This follows when the organism has had time to elaborate certain products under the influence of the pathogenic substance, which in turn modify the latter. When this modification has reached a certain degree the symptoms begin to appear.

101. **Radium Treatment of Carcinoma.**—Exner exhibited from the late Professor Gussenbauer's clinic a case of carcinoma of the mouth and two of melano-sarcomata, at the meeting of the local medical society, June 26. (See editorial, THE JOURNAL, July 11.) Each had been treated with the radium rays, applying the radium in a capsule fastened to the spot with adhesive plaster. One melano-sarcoma had been removed three years before, but numerous small metastases had been noticed for eight months, shimmering black through the skin. These nodules were treated once each with the radium for five to twenty-five minutes. A dermatitis followed, the redness first perceptible after two to forty-eight hours. None of the nodules showed much change that had been treated for only fifteen minutes or less, but all the others grew perceptibly smaller, and some of them retrogressed completely. The nodules disappeared before the superficial tissues exhibited the necrosis from the action of the rays. In one case an epithelioma at the corner of the mouth recurred after three operations three and six years apart. The outer surface formed a protruding ulcer about the size of a quarter, that could be palpated as a hard tumor the size of a hazel nut, not definitely circumscribed. A second tumor was also observed in the neck. The capsule containing the radium bromid was protected from moisture by a rubber cot, and the patient applied it himself to the lesion on the mouth for fifteen to twenty minutes. The applications were made six times in less than a month. In seventeen days the tumor had perceptibly diminished in size and the ulcer began to heal over. No further visible reaction was observed at any time. The tumor rapidly subsided after this, and by the end of the month had apparently vanished. In the third case treated with the radium the same retrogression of the malignant tumor was realized.

102. **Radium Treatment of Cutaneous Affections.**—Holzknecht also exhibited at the same meeting several cases of cutaneous affections treated with the radium rays, one application each. One was a case of psoriasis gyrata of the entire body, which had been nearly cured with the *x*-rays and the cure was completed by the application of the radium. Very slight and brief application of the *x*-rays (2 H) are enough to cure psoriasis. The patches heal, while the sound skin is not affected by the applications. The same is true of the radium. A minute's application was amply sufficient. Recurrences will probably follow as after every method of treating psoriasis. In a case of lupus hypertrophicus one patch was cured with the *x*-rays and one with the radium. The latter was applied to the spot twice, at a month's interval, for seven minutes at a time.

The similarity of the action of the two kinds of rays was here striking, and the radium was superior, if anything, and can be applied to the mucous membranes. An epithelioma on the cheek also rapidly subsided till only a trace of infiltration around the edge still persists after three applications of the radium capsule for five minutes each. The most remarkable of all his cases was an extensive flat telangiectasia covering the entire left arm. He comments on the differences between the Becquerel and the Roentgen rays, laying special stress on the histologic studies of ray dermatitis which the Neisser school has published, Scholz's thesis in particular. The latter is a complete monograph on the histology of Roentgen dermatitis in man and animals. He has shown that the Roentgen rays cause degenerative processes in the cells of the intima of the blood vessels. The action of the radium rays seems to be identical, only much more intense. As a consequence of the degeneration there ensues a rapid dilation of the capillary and precapillary vessels. In the case of telangiectasia described, the radium capsule was applied for ten minutes each at eight various points on the nevus, while the parts between received only the small quantity of the rays that passed through the sides of the capsule. When exhibited, at these eight points there were corresponding small patches, .5 cm. in diameter, of perfectly normal, tender, white skin in the midst of the nevus vasculosus. Applications of the Roentgen rays had no such effect, but merely slightly blanched the points.

104. **Blastomycosis.**—Brandweiner exhibited at the same meeting a case of what he believed to be blastomycosis "in the sense of the Americans," and two others were reported by himself and Oppenheim. The latter stated that only 45 such cases have been published, and all but 2 in America, but he is convinced that many cases diagnosed as lupus verrucosus, epithelioma or syphilis must have been in reality cases of blastomycosis. Differentiation is important as potassium iodid is an energetic and certain specific against this affection.

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105 (XIX, 12.) Relations Between Recurring Epidemics of Malaria. G. B. Mariotti-Bianchi.—Sulla malaria nella guarnigione di Roma dal gennaio al luglio 1902, etc.
106 (No. 13.) Reduplicatton of Second Sound. U. Gabbi.—Lo sdoppiamento del secondo tono nella stenosi mitralica.
107 *Contributo allo studio della setticemia da micrococco tetragono nell' uomo (in man). L. Fornaca (Turin). (Commenced in No. 12.)
108 (No. 14.) Compensation in Experimental Heart Defecta. L. Ferrannini.—Il compenso nei vizii cardiaci acuti sperimentali.
109 Azione simultanea delle sostanze proteiche del bacillo tifogeno e della tossina difterica. F. Silnelli.
110 *Action of Suprarenal Extract in Gastrointestinal Atony. U. Baccarani and A. Piessi.—Ricerche cliniche sull'azione dell' estratto di sostanza midollare delle capsule surrenali (paraganglina Vassale) nell' atonia gastrointe.
111 (No. 15.) *Hemostasis in Resection of Spleen. L. Girolamo. —Emostasi nelle resezioni della milza.
112 *Richerche sperimentali e cliniche sopra 2 casi di emoglobinuria parossistica. G. Mattirolo and E. Tedeschi. (Commenced in No. 13.)
113 Note di anatomia topografica per l'innesto della vena porta con la cava ascendente (for anastomosis of venæ portæ and cavæ). G. Russo-Travali.
114 (No. 16.) Emigration of Elements of Blood in Leukemia. F. Schupfer.—Sulla emigrazione degli elementi del sangue nei trasudati ed essudati dei leucemici. (Commenced in No. 15.)
115 *Tonic Treatment of Epileptics. U. Alessi (Pisa).—Contributo alla cura dell'epilessia.
116 Alcune considerazioni sulla patogenesi della corea del Sydenham. A. B. Gianasso.
117 (No. 17.) Contributo allo studio della nevrasthenia infantile. L. Cappelletti.
118 L'acido picrico nell' uretrite blenorragica. F. Re.
119 (No. 18.) Experimental Lead Poisoning. G. Fasoli.—Sulle alterazioni anatomiche nell' avvelenamento sperimentale da piombo. (Commenced in No. 17.)
120 Sopra 2 casi di psicosi da ileo-tifo. M. Foa.

107. **Septicemia from Micrococcus Tetragonus.**—Fornaca describes the case of a man of 45 who for three months exhibited chills and remittent fever of a pyemic type with much emaciation, a hemorrhagic pleural effusion and hypertrophy of the liver and spleen. Repeated exploratory puncture was negative, but a parasite supposed to be the white tetragonus was found constantly in the blood, in the pleural effusion and in the urine. The cultures on the most varied media were always white until the infection began to decline, when they became yellowish. The red corpuscles were somewhat altered, the hemoglobin low, and the whites numbered a third more than normal. The treatment instituted was endovenous injections of sublimate, and under their influence the proliferation of the bacteria in the blood was arrested, and they finally disappeared, while the blood rapidly regenerated, the number of whites subsided to normal, and the liver resumed its normal size. Before resorting to the sublimate, various other measures had been tried, but with no effect. The endovenous injections of 2 to 4 mg. of corrosive sublimate were repeated every day from April 22 to May 3, with marked influence on the temperature curve. The first four days there was a chill and fever to 40 and 40.5 C., but the temperature gradually subsided, and after the eleventh day there was almost complete apyrexia, but the symptoms still continued to simulate an abscess in the liver, to such an extent that the abdomen was opened and explored twice, but with negative results. After remaining in the neighborhood of normal for several days the temperature again rose and the sublimate injections were resumed and continued for nearly a month. They seemed to be perfectly tolerated and progressive improvement followed, the patient leaving the hospital, July 6, apparently cured. His first symptoms had been noted in December, and he entered the hospital in March.

110. **Suprarenal Extract in Gastrointestinal Atony.**—Baccarani reports from Galvagni's clinic at Modena very favorable results from the use of Vassale's extract of the medullary substance of the suprarenal capsules in 14 cases of atony of the stomach. Experimental and clinical tests demonstrated its marked influence on the motor function of the stomach, perceptible even from the outside. The effects in the clinic also suggested that the active principle secreted in the medullary substance of the suprarenal gland raises the tone of the cardiovascular apparatus and the metabolism in general. The benefits derived also suggest that certain cases of gastrointestinal atony with general asthenia, headache, insomnia, etc., may be due to simple functional insufficiency of the suprarenal capsules, transient or relative.

111. **Hemostasis in Resection of Spleen.**—Girolamo calls his method intralienal suture; it has been thoroughly tested on dogs. A silk suture is passed through the sound part of the spleen from within outward, about one centimeter below the free margin of the organ and eight millimeters from the line of the projected incision. Another needle on the same thread is then passed in the same way from the concave surface outward, about one centimeter beyond the first needle. A third and a fourth needle on the same thread are then inserted in the same way. The entire margin of the parenchyma of the spleen is thus included in the threads, which are tied in loops, after being cut at the eye of each needle. A single needle and several threads can be used instead of the single one if wished.

112. **Paroxysmal Hemoglobinuria.**—The authors suggest as a hypothesis from the findings in Case 1 that the hemoglobinuria was due to loss of balance between the resistance of the red corpuscles and the toxic action of the serum. The balance may be upset by cold, congestion, trauma or other cause. The resulting hemolysis is followed by a defensive reaction on the part of the organism and an antihemotoxin is elaborated which arrests the hemotoxic process. The red corpuscles are thereafter more resistant than normal, as was observed in the blood of this patient. There was no hemoglobinemia after the attack was once established. The other case was one of hemoglobinuria without hemoglobinemia. The serum had merely slight agglutinating power and the hemoglobinuria was probably to be ascribed to some morbid condition of the kidneys as symptoms of nephritis were noted.

115. **Tonic Treatment of Epileptics.**—Alessi calls attention to the great benefit he has derived in a number of cases of epilepsy from general tonic treatment. He has found very useful a combination of sodium arseniate 1 mg.; zinc phosphite 5 mg.; calcium phosphate 8 cg.; sodium benzoate and pancreatin, each 20 cg. Twenty such doses are given in all, one to three a day before meals. The zinc phosphite is both tonic and sedative. Sabbatani has established that lime reduces the excitability of the cortex, and the pancreatin has a favorable influence on

digestive processes. Alessi supplements it with a little rhubarb. In conclusion he reports four cases in detail treated on this principle, showing the improvement in cases in which the morbid process has not already induced irreparable anatomic changes. He emphasizes in conclusion that the physician should aim to cure the epileptic, not the epilepsy; the greater includes the less.

Russky Vratch, St. Petersburg.

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121 (I, 42.) 1,100 Cataract Operations. Madame A. G. Arkhangelskoi (government medical officer in country district). —O 1,100 ezvletchenii katarakt.

122 Gangrena spontanea s. senilis. A. V. Beketoff. Ten cases; endarteris obliterans constant.

123 *Electric Wet Packs. P. Rutkovsky.—Obshtchie sogryevayushtchie elektritcheskie kompressy.

124 (No. 43.) Massage Treatment of Affections of Testicles and Adnexa. J. V. Zabludowsky.—K lyetchenlyu yaitchek, etc.

125 Preventive Plague Vaccination. A. M. Besredka.—O prekhranitelnya privivkakh pri tchumye.

126 Tetany in Children. 71 Cases with Autopsy in 6. R. A. Peters.—71 slutchai dyetskoi tetanii s 6 pat.-anat. ezsiyedovaniyami.

127 O Chorion-Epithelioma. L. R. Krever. (Concluded.)

128 Personal Test of Transmission of Malaria by Anopheles. V. V. Favre.—Opyty zarazheniya bolotnoi likhoradkoi, etc.

129 Vaginal Ovariotomy. A. A. Anufrieff.—K voprosu ob udalenie kozherikov yaitchnika tcherez viagalishtchie. (Commenced in No. 40.)

130 (No. 44.) *Late Recurrences of Cancer. V. N. Heynatz.—O posdnikh vozvratakh raka.

131 Athletics at Universities. G. I. Turner.—Sport i physltcheskiya, etc.

132 Evolution of the Leucocytes. G. R. Rubinstein.—K voprosu evolutsii byelova krovyanova sharika.

133 *Connection Between the Female Genital Organs and Nasal Affections. S. A. Liboff.—O svyazi zaboiyevanii zhenskikh polovykh organov s zaboiyevaniyami nosa.

134 (No. 45.) Hernia processus vaginalis encystica. K. I. Susloff. (Commenced in No. 44.)

135 Polymorphism of Plague Bacillus. V. V. Favre.—O polimorphismye tchumnoi palotchki.

136 *Secreting Functions of Stomach Glands, Especially in the Insane. A. I. Yushtchenko.—O zheludotchnom pishtchevarenii, etc.

137 Distribution of Rabies Virus in the Organism. A. M. Tcherevkoff.—O raspredyelenii dlya vodoboyazni, etc.

138 (No. 46.) Relations Between Chorea and Athetosis. M. J. Breitmann.—O patogeneyze Vittorol piyaski i atetoza i o rodstvye meshdu etimi 2-mya formami.

139 *Study of Alkalinity of Blood. V. F. Orlovsky.—Novia danniya v utchenii o shtchelotchnosti krovi.

140 (No. 47.) Traumatism of Cervical Vertebræ. L. M. Pussep. —O vrann. povrezhdeniyakh sheinoi tchasti pozvonotchnika.

141 Rat Disease Due to Acid-proof Bacilli. V. K. Stephansky.—Zaboiyevaniya u krys, vyzvannya kislotoupornoi palotchkoi.

123. **Electric Wet Packs in Nervous and Mental Diseases.**—Rutkovsky has been advocating for some time local wet packs through which electricity is conducted, and now describes two cases in which the entire body was packed with these "electric compresses." Both were women, one a physician addicted to morphin, the other a case of neurasthenia, anemia, insomnia, etc. Marked benefit was derived in both. The patient is wrapped in a sheet wrung out of hot water, all but the head and one hand being thus covered. The cathode is applied to the feet and the anode, about 100 sq. cm. in size, is placed on the palm of the exposed hand. The current is turned on to the strength of 2 to 5 milliamperes for twenty to thirty minutes, reducing the strength whenever tingling is felt in the hand. The electric compress was applied twice at an interval of five days in the first case, and then several times later, and the patient said that she had never felt so well in her life; appetite and sleep have returned, and morphin has been abandoned. In the other case the neurasthenia inclined to melancholia with tendency to suicide, and the electric packs were supplemented by massage and suggestion. This treatment was successful after failure of all other measures during months of trial.

130. **Late Recurrences of Cancer.**—Heynatz has observed a number of cases in which cancer recurred after ablation more than three years previously. The late recurrences do not differ in any respect from those that appear in the first three years, and must be due to relics of the original tumor which have lain latent in the interim, even as long as twenty years in some instances. He, therefore, suggests that our acceptance of three years as the limit for a cure of cancer needs revision to conform to the clinical facts observed. In his own experience of 122 cases of recurrence, it was observed during the first year in 56; during the second in 46; during the third in 18, and after the third year in the same number. In one case, which he believes is unique, a recurrence the size of a pea was found in three months after ablation of a cancer on the tongue, but the patient has been in perfect health during the eight years since the recurrence was removed. The point which he wishes to specially emphasize is that recurrence at any date should be treated by prompt excision, and that the second operation may completely eradicate the malignant disease. His percentage of late recurrences is larger than those of Labhardt's statistics, and a much larger proportion were operable.

133. **Connection Between Affections of Female Genital Organs and the Nose.**—Liboff's experience confirms that of other authors who have reported great benefit in certain gynecologic affections from cocainization of the genital points in the nose. The results were surprisingly effective in nervous dysmenorrhea, that is cases in which nothing pathologic could be discovered in the genital organs to explain the painful menstruation. The measure is especially beneficial in the case of young girls or unmarried women, and cocainization of other points besides those described by Fliess as the genital points, may prove similarly effectual. The explanation of these results is probably that many gynecologic affections are traceable to some neurosis.

136. **Gastric Secretory Function, Especially in the Insane.**—There is a natural secretion of gastric juice as food is being taken and is passing through the natural passages, and this factor in digestion is lacking when the subject is being fed through a stomach tube. Consequently articles for this form of feeding should be selected with a view to compensate this lack. Yushtchenko has found that milk, as a natural stimulant for the nervous and glandular apparatus, is the best of all foods for artificial feeding, especially for patients with little if any appetite. He has also found that besides milk, bouillon and the meat powder sold in Russia, all act as stimulants for the secretory gastric functions, and are, therefore, best suited for gavage of the insane. They may be effectively supplemented by eggs and the bread powder which is another Russian article. The use of these stimulating foods supplies the nervous and glandular apparatus with the stimulus naturally afforded by exercise and appetite.

139. **Study of Alkalinity of Blood.**—In tests on dogs, rabbits and in the clinic, Orlovsky found that the degree of leucocytosis had no influence on the alkalinity of the blood, even when a hyperleucocytosis up to 75 per cent. existed. On the other hand, he is convinced that the alkalinity of the blood, that is, of its plasma, is an important factor in the biologic life of the organism, and that the degree of alkalinity is dependent on the number of red corpuscles, as the alkaline elements are contained in the latter as well as in the plasma. The fluctuations in the number of reds in various pathologic processes in the individual as also in the same process in different individuals, amply explain the variations in the alkalinity of the blood.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE MICROSCOPICAL EXAMINATION OF FOODS AND DRUGS. A Practical Introduction to the Methods Adopted in the Microscopical Examination of Foods and Drugs, in the Entire, Crushed and Powdered States. By Henry George Greenish, F.I.C., F.L.S., Professor of Pharmaceutics to the Pharmaceutical Society of Great Britain. With 168 Illustrations. Cloth. Pp. 316. Price, $3.50 net. Philadelphia: P. Blakiston's Son & Co. 1903.

BREWER'S SURGERY. A Text-Book of Surgery for Students and Practitioners. By George E. Brewer, A.M., M.D., Lecturer on Clinical Surgery at the College of Physicians and Surgeons (Medical Department of Columbia University), New York. With 280 Engravings and 7 Plates in Colors and Monochrome. Cloth. Pp. 712. Price, $4.00. Philadelphia and New York: Lea Brothers & Co. 1903.

STUDIES FROM INSTITUTE FOR MEDICAL RESEARCH. An Inquiry Into the Etiology and Pathology of Beri-beri. By Hamilton Wright, M.D. (McGill), Director of the Institute for Medical Research, Federated Malay States. Printed by Authority of the Resident General, F.M.S. Vol. II, No. 1. Paper. Pp. 93. Price, 3s net. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1902.

AN ENGLISH HANDBOOK OF THE PARIS MEDICAL SCHOOL. By A. A. Warden, M.D., Visiting Physician to the Hertford British

Hospital, Paris. With Prefatory Letters by Lord Lister and Prof. W. W. Keen. Paper. Pp. 72. Price, 2s. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

A COURSE OF LECTURES ON MEDICINE TO NURSES. By Herbert E. Cuff, M.D., F.R.C.S., Medical Superintendent Northeastern Fever Hospital, Tottenham, London. Fourth Edition. Cloth. Pp. 270. Price, $1.25 net. Philadelphia: P. Blakiston's Son & Co. 1903.

REPORT OF THE BUREAU OF VITAL STATISTICS of the State of New Jersey for the Year Ending Dec. 31, 1901. Pasteboard. Pp. 382. Trenton, N. J.: J. L. Murphy Publishing Company. 1903.

New Patents.

Patents of interest to physicians, granted July 7 and 14:

733120. Sanitary napkin holder. Frederick M. Baldwin, Winter Park, Fla.
733124. Hernial truss. Townsend Beckwith, Big Flats, N. Y.
733152. Empyema drainage device. Murdoch Chisholm, Halifax, Canada.
732732. Making lithophone and Glauber salt. William D. Gilman, Baltimore.
733026 and 733027. Inhaler. Sydney O. Goldan, New York.
732855. Pessary. Edgar M. Hewish, Philadelphia.
733040. Massage machine. Alva D. Jones, Louisville, Ky.
733228. Beverage dispenser. George A. Logan, Chicago.
732897. Apparatus for massaging. Graziano Sartori, Berlin, Germany.
732801. Machine for polishing atomizer tubes. Charles L. Turner, Winthrop, Mass.
732975 and 733358. Tachometer. Curtis H. Veeder, Hartford, Conn.
733364. Nebulizer. Robert L. Benson, Chicago.
733536. Case for clinical or other therometers. Frank J. Berberich, Jr., Brooklyn.
733809. Water bottle funnel neck. Robert D. Bradley, Canton, Ohio.
733472. Artificial limb. Erick H. Erickson, Minneapolis.
733268. Massage instrument. Benjamin E. Joseph, Chicago.
733402. Obstetrical forceps. Henry F. Koch, Hartington, Neb.
733729. Making cellulose esters. George W. Miles, Belmont, Mass.
733504. Medicated plaster. Frederic J. Nash, Brooklyn.
733879. Hernial truss. John R. Sheehan, Atchison, Kan.
733604. Apparatus for pasteurizing milk. Lee Sturges, Elmhurst, Ill.
733784. Massaging implement. Charles S. Whitney, Springfield, Ill.

The Public Service.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ended July 18:

Surgeon H. L. Law, retired, ordered to additional duty at Marine Recruiting Station, Providence, R. I.

Asst.-Surgeon H. L. Brown, appointed asst.-surgeon, with rank of lieutenant, junior grade, from June 29, 1903.

Asst.-Surgeon J. C. Thompson, detached from the *Columbia* and ordered home to wait orders.

Asst.-Surgeon C. H. DeLancy, detached from the Navy Yard, Norfolk, Va., and ordered to the *Columbia*.

A. A. Surgeon G. R. Plummer, ordered to Naval Station, Key West, Fla.

Surgeon C. H. T. Lowndes, detached from the Naval Station, San Juan, P. R., and ordered home to wait orders.

Surgeon G. Pickrell, ordered to Naval Station, San Juan, Porto Rico.

Surgeon H. N. T. Harris, orders of July 8 modified; detached from *Glacier* and ordered to Navy Yard, Pensacola, Fla.

P. A. Surgeon W. H. Bucher, detached from Navy Yard, Pensacola, Fla., and ordered to Washington, D. C., July 21, for examination for promotion, and thence to San Francisco to take passage on S. S. *Siberia*, sailing August 8 for Asiatic Station, for duty at Navy Yard, Cavite, P. I.

Asst.-Surgeon J. C. Thompson, orders of July 14 modified; detached from *Columbia* and ordered to *Chesapeake*.

Asst.-Surgeon A. J. Geiger, detached from Naval Hospital, Navy Yard, Norfolk, Va., and ordered to Washington, D. C., for duty as recorder of naval and medical examining board now in session at Naval Museum of Hygiene and Medical School.

A. A. Surgeon R. B. Chapman, ordered to duty with Recruiting Party No. 6.

A. A. Surgeon L. H. Schwerin, detached from duty with Recruiting Party No. 6 and ordered to the *Southery*.

A. A. Surgeon F. W. Tyree, ordered to the Naval Station, Port Royal, S. C.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended July 16, 1903:

P. Surgeon J. C. Perry, granted leave of absence for one month from July 14.

P. A. Surgeon M. J. Rosenau, to proceed to Boston, Philadelphia, Marietta and Swiftwater, Pa.; Detroit, St. Louis, Milwaukee, Wis.; Chicago and Baltimore for special temporary duty.

P. A. Surgeon H. W. Wickes, granted leave of absence for one day, July 17.

P. A. Surgeon T. Clark, granted leave of absence for seven days from July 13, 1903, under paragraph 191 of the Regulations.

Asst.-Surgeon T. B. McClintic, to proceed to Atlantic City, Point Pleasant and Tuckerton, N. J., for the purpose of making physical examinations of keepers and surfmen of the Life-Saving Service.

Asst.-Surgeon F. E. Trotter, granted seven days' extension of leave of absence from July 13.

Asst.-Surgeon C. W. Wille, to proceed to Ocean City, Md.; Chincoteague Island and Onley, Va., to make physical examinations of keepers and surfmen of the Life-Saving Service.

A. A. Surgeon P. N. Barnesby, granted leave of absence for two weeks, on account of sickness, from July 2.

A. A. Surgeon W. R. Hicks, granted leave of absence for three days from July 14.

A. A. Surgeon C. B. Sweeting, granted leave of absence for thirty days, on account of sickness, from July 10.

A. A. Surgeon Jay Tuttle, department letter granting leave of absence for thirty days amended so as to be effective July 3.

A. A. Surgeon W. A. Weldon, granted leave of absence for fifteen days from July 11.

BOARDS CONVENED.

Board convened at the Marine Hospital, Port Townsend, Wash., July 17, 1903, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: P. A. Surgeon J. H. Oakley, chairman; P. A. Surgeon M. H. Foster, recorder.

Board convened at the Marine Hospital, Chelsea, Mass., July 21, 1903, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: Surgeon R. M. Woodward, chairman; Asst.-Surgeon W. C. Rucker, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended July 18, 1903:

SMALLPOX—UNITED STATES.

Alabama: Mobile, July 4-11, 2 cases.
California: San Francisco, June 28-July 5, 3 cases.
Georgia: Atlanta, July 1-8, 1 case.
Illinois: Chicago, July 4-11, 4 cases.
Indiana: Kokomo, July 4-11, 2 cases.
Louisiana: New Orleans, July 4-11, 2 cases.
Maine: Fort Kent and vicinity, July 10-14, 24 cases.
Massachusetts: Fall River, July 4-11, 15 cases; New Bedford, July 4-11, 2 cases; Taunton, July 4-11, 2 cases.
Michigan: Detroit, July 4-11, 11 cases; Port Huron, July 4-11, 3 cases.
New Jersey: Camden, July 4-11, 1 case.
New Hampshire: Manchester, July 4-11, 3 cases.
New York, July 4-11, 1 case.
Ohio: Cincinnati, July 3-10, 2 cases; Cleveland, July 4-11, 1 case; East Liverpool, June 1-30, 6 cases; Hamilton, July 4-11, 4 cases, 2 deaths; Toledo, July 4-11, 2 cases.
Pennsylvania: McKeesport, July 4-11, 1 death; Philadelphia, July 4-11, 54 cases, 11 deaths; Pittsburg, July 4-11, 47 cases, 2 deaths.
South Carolina: Charleston, July 4-11, 4 cases.
Tennessee: Memphis, July 4-11, 2 cases; Nashville, July 4-11, 3 cases.
Utah: Salt Lake City, June 27-July 11, 8 cases, 1 case imported.
Wisconsin: Milwaukee, June 27-July 4, 6 cases.

SMALLPOX—FOREIGN.

Austria: Prague, June 13-20, 6 cases.
Belgium: Brussels, June 20-27, 5 deaths.
Brazil: Pernambuco, May 8-31, 11 cases.
Canary Islands: Las Palmas, June 13-27, 10 cases.
Colombia: Bocas del Toro, June 23-30, 8 cases, 1 death.
Ecuador: Guayaquil, June 20-27, 1 death.
France: Marseilles, May 1-June 30, 19 cases, 32 deaths; Rouen, May 1-31, 3 deaths.
Great Britain: Birmingham, June 20-27, 4 cases; Dublin, June 20-27, 9 cases, 2 deaths; Dundee, June 13-20, 2 cases; Leeds, June 27-July 4, 4 cases; Liverpool, to July 4, 28 cases, 4 deaths; Manchester, June 20-27, 10 cases; Newcastle-on-Tyne, June 13-27, 9 cases; Nottingham, June 20-27, 4 cases; Sheffield, June 13-20, 1 case; Southampton, June 13-20, 1 case from S. S. *Paul*, from New York.
India: Bombay, June 9-16, 27 deaths; Calcutta, June 6-13, 2 deaths.
Mexico: City of Mexico, June 14-27, 29 cases, 20 deaths.
Russia: St. Petersburg, June 20-27, 11 cases, 3 deaths; Warsaw, June 6-13, 2 cases.
Spain: Barcelona, June 13-20, 7 deaths.
Turkey: Constantinople, June 21-28, 1 death.

YELLOW FEVER.

Colombia: Panama, June 20-July 6, 6 cases, 2 deaths.
Costa Rica: Limon, June 24-July 2, 7 cases, 1 death.
Cuba: Havana, July 14, 1 death, patient taken from S. S. *Vigilancia* from Progreso.
Mexico: Progreso, June 21-July 5, 2 cases; Tampico, June 27-July 4, 28 cases.

PLAGUE—INSULAR.

Hawaii: Honolulu, July 3, 1 death.

PLAGUE—FOREIGN.

Australia: Queensland, Brisbane, May 9-30, 2 cases, 2 deaths; Bundaberg, May 16-23, 1 case, 1 death.
Western Australia: Freemantle, June 10, 1 case.
Egypt: Alexandria, June 6-13, 4 cases, 2 deaths; Beni Mazar, June 6-13, 2 cases; Port Said, June 6-13, 1 case, 1 death; Tukh, June 6-13, 8 cases, 2 deaths; Samalut, June 6-13, 2 cases, 2 deaths.
India: Bombay, June 9-16, 186 deaths; Calcutta, June 6-13, 15 deaths; Karachi, June 7-14, 15 cases, 13 deaths; Mauritius, June 4-11, 2 deaths.
Japan: Nagasaki, May 27, 1 death; Yokohama, June 6-13, 3 cases, 2 deaths.

CHOLERA.

India: Calcutta, June 9-16, 45 deaths; Madras, June 6-12, 1 case, 1 death.
Straits Settlements: Singapore, May 16-30, 20 deaths.